

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
SOUTH ATLANTIC STATE/FEDERAL FISHERIES
MANAGEMENT BOARD**

The Crowne Plaza Hotel – Old Town
Alexandria, Virginia
August 7, 2013

Approved February 6, 2014

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1. **Approval of Agenda by Consent** (Page 1).
2. **Move that Pat Geer be appointed Vice-Chair of the South Atlantic Board by acclamation** (Page 1). Motion by Robert Boyles; second by Spud Woodward.
3. **Move to develop the traffic light approach for spot and Atlantic croaker and propose management options in response to various conditions of that traffic light approach** (Page 15). Motion by Spud Woodward; second by Bill Goldsborough. Motion carried (Page 15).
4. **Move to adopt Option 2 as the preferred for Draft Addendum I** (Page 17). Motion by Robert Boyles; second by Bill Cole. Motion carried (Page 17).
5. **Move to approve Addendum 1 to the Spanish mackerel FMP** (Page 17). Motion by Robert Boyles; second by Bill Cole. Motion carried (Page 17).
6. **Move to approve the FMP review for Atlantic croaker** (Page 18). Motion by Spud Woodward; second by Malcolm Rhodes. Motion carried (Page 18).
8. **Move to approve the FMP review for red drum and grant the de minimis requests from New Jersey and Delaware** (Page 19). Motion by Robert Boyles; second by Bill Cole. Motion carried (Page 19).
9. **Move to accept Draft Addendum I to Amendment 2 to the Red Drum Fishery Management Plan Habitat Needs and Concerns** (Page 19). Motion by Wilson Laney; second by Robert Boyles. Motion carried (Page 19).
10. **Move to add Harry Rickabaugh to the Spot Plan Review Team** (Page 20). Motion by Tom O'Connell; second by Joe Grist. Motion carried (Page 20).
11. **Adjourn by Consent** (Page 20).

ATTENDANCE

Board Members

Russ Allen, NJ, proxy for D. Chanda (AA)	Ross Self, SC, Administrative proxy
David Saveikis, DE (AA)	Malcolm Rhodes, SC (GA)
John Clark, DE, Administrative proxy	Sen. Ronnie Cromer, SC (LA)
Bill Goldsborough, MD (GA)	Spud Woodward, GA (AA)
Tom O'Connell, MD (AA)	Patrick Geer, GA, proxy for Rep. Burns (LA)
Russell Dize, MD, proxy for Sen. Colburn (LA)	Jim Estes, FL, proxy for J. McCawley (AA)
Jack Travelstead, VA (AA)	Martin Gary, PRFC
Louis Daniel, NC (AA)	Wilson Laney, USFWS
Bill Cole, NC (GA)	Bill Archambault, USFWS
Robert Boyles, Jr., SC (AA)	Virginia Fay, NOAA

(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

Ex-Officio Members

Joe Grist, Technical Committee Representative

Staff

Bob Beal	Melissa Yuen
Kirby Rootes-Murdy	Toni Kerns

Guests

Kelly Place, VA Watermen's	Dick Brame, CCA
Gordon Colvin, NOAA	Brandon Muffley, NJ DFW
Taylor Daley, DNREC	Aaron Kornblutt, Pew Trusts
Harry Rickabaugh, MD DNR	

The South Atlantic State/Federal Fisheries Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Ballroom of the Crowne Plaza Hotel Old Town, Alexandria, Virginia, August 6, 2013, and was called to order at 2:10 p.m. by Chairman Louis Daniel.

CALL TO ORDER

CHAIRMAN LOUIS B. DANIEL: Welcome to the South Atlantic Board. We've got 20 minutes to get through an hour and a half agenda to get Toni back on schedule. You should have your agenda. All the materials are on the back table. Staff may come around with some pertinent materials as we move forward.

APPROVAL OF AGENDA AND APPROVAL OF PROCEEDINGS

You should have seen the agenda and also the proceedings from our May meeting. Are there any changes? I'm going to add a SEAMAP update as other business. That is all I have for other business; and adding a member to the Spot Plan Review Team is another piece of other business. Anything else? Is everybody comfortable with the agenda and the minutes? They will stand approved. The next item on our agenda is to elect a Vice-Chair. I would accept nominations.

ELECTION OF VICE-CHAIR

MR. ROBERT H. BOYLES, JR.: Mr. Chairman, I would like to nominate Pat Geer for the Vice-Chair of the South Atlantic Board.

CHAIRMAN DANIEL: Second from Spud.

MR. BOYLES: **I move that we close the nominations and that Pat Geer be appointed Vice-Chair by acclamation.**

CHAIRMAN DANIEL: So ordered. Congratulations, Pat. Now if I have to step down, I have somebody to call on.

SPOT AND ATLANTIC CROAKER TRIGGER EXERCISES UPDATE

CHAIRMAN DANIEL: At this point I am going to move on to the technical committee and have some discussion on the spot and Atlantic croaker trigger. We've got some updated information on that. Then we'll hopefully be able to quickly move through the Spanish Mackerel Addendum. The FMP review and compliance reports; I don't think there is a lot there. I am going to try to get through those as quickly as I can.

Then the habitat stuff is really Mom and apple pie. I'm not sure; I haven't heard of any concerns or issues associated with that. I will run through the agenda really quickly with you just to let you know that I think Item 5, the one we're getting ready to talk about is the big issue, and the one that will probably have the most discussion. Let's take our time with Item 5.

MR. HARRY RICKABAUGH: The first segment we're going to go through is the Atlantic Croaker Assessment Trigger Report. If you recall, this particular trigger is for an assessment and not for management. I will just roll right through it here real quick. There are several parts to it. The only hard trigger is annual landings, both commercial and recreational.

We also look over biological data, effort and landings data from individual fisheries and also some fishery-independent surveys. As I mentioned, the hard trigger is the commercial landings. It is basically the terminal year compared to the previous two years' average. It has to be a 70 percent or more decrease.

For 2012 you would need the average of 2010 and '11 to be – well, 2012 would have to be 70 percent or less of the average of 2010 or '11. If we look at the commercial landings, the bars in red are the years in which it would have triggered. Essentially those years are at least 70 percent lower than the previous two-year average. You can see in recent years, in the red oval, that none of those years have triggered, but we have continually declined.

Basically it provides a moving target is what is happening. As the landings continue to slowly fall, the previous two-year average continues to fall, so the landings would have to decrease more substantially each year to ever get up to that 70 percent decline. In the interest of time, I am going to go over something I was going to talk about later on now.

If you look between 2010 and 2011, there is kind of a steep drop there. Most of our effort declined slightly through the mid to late two thousands. Recently that has kind of leveled off, effort has leveled off, and some has gone up a little or down a little. The one exception is the North Carolina fly net. There was a big drop in effort for that particular fishery.

That is a high-volume fishery. It typically does about 3.5 million pounds a year. It is now doing only about 500,000 pounds a year. Effort has dropped by 80 percent. Some of that drop is related to that. It has to do with the hurricane events I guess at the end of the 2010 year; closing in some inlets, and the boats actually can't get out.

For both 2011 and '12, you are missing about 2.5 to 3 million pounds just off of that alone. Now both of those years still would have decreased, but not by the margin you see there. Those actually would come out to be pretty close to the long-term mean. That is kind of where we're at now.

But you can see we were at a pretty high point there in the two thousands, and now we've slowly declined and we're down to the mean. Hopefully, we don't continue to decline from there. This is the recreational landings. You can see this did trigger last year. Some of you may remember this. The technical committee decided not to recommend an assessment mainly due to data limitations.

The previous stock assessment, the Peer Review Panel didn't like our estimates of shrimp trawl bycatch. There are currently some studies going on to help us gather more information for that, so we'd rather wait for the scheduled benchmark rather than push an assessment up, so we have

more information and hopefully can get a better handle on the shrimp trawl discards.

But in relation as far as the recreational landings, they are below their long-term mean. They were in 2011, and they remain so in 2012. You see about over the same time period you also have this same slow decline also within recreational landings. As you saw on the graphs, the red bars were not in 2012; neither one of them triggered. Commercial is 80 percent below the previous two-year average, recreational about 76 percent. We also look at some biological data, recreational and commercial mean lengths and commercial mean lengths by fishery; and also some age data and I'll just go through this real quick.

This slide is actually mistitled. The first three blocks you see there are actually recreational from MRIP coastwide and then broken down Mid-Atlantic and South Atlantic. You can see there was a little bit of a decline coastwide, more so in the Mid-Atlantic. The South Atlantic actually had a slight increase in mean length.

Typically, the South Atlantic has a lower mean length than the Mid-Atlantic, and now they've kind of evened out to about the same. It is pretty obvious that almost every one of the commercial fisheries has not seen a reduction in mean length. Similarly with mean weight, we have a much more variability with a mean weight.

Many states I know, our state, Maryland, we don't take as many weights as length. These may not be quite as accurate as the length data. At any rate, most of them are declining. I'm not going to go over each individual length at age, but we did calculate length of age by gear, by state. Essentially there is a slight decline across ages. It is not a single age group or a group of ages that are making up this average length decline. It is across all ages. If you look at the proportion at age, one thing you will notice which has held true throughout the years is you will see these strong year classes move through time. There will be a high proportion at age two. They usually recruit about age two; age three they are fully recruited to most fisheries.

As they move through, you will see them for a few years be a dominant year class move through the fishery. Now both here in New Jersey and Maryland, you can see towards the end we are starting to lose older age fish, particularly age nine plus. They are completely missing by 2012 in both states.

North Carolina and Virginia are the primary landings states. Virginia, you can still kind of see that carry through. North Carolina, it is watered down a little bit. They have some inshore and offshore fisheries. Some catch fish averaging like 9 inches, some more like 12 inches. I think they catch more of a mix of ages than some of the other states.

You can still see the reduction in 9-year-old-plus fish. It declines to near zero in North Carolina and a pretty low percentage in Virginia by 2012. If you look at effort versus landings, I kind of already touched on that back at the commercial slides, so I'll skip that one. Basically effort has been fairly steady in the last few years after it had been declining for several years.

Recreational CPUE, you may recall last year the TC did an analysis of the Stevens and MacCall method, as well as the Jaccard Index, which is also a species association index, to try to get at a better subset of directed trips. We decided to wait for a peer review to look over our latest attempts at making a recreational CPUE.

Therefore, we're not going to present it at this time, we didn't last year, and we'll wait until after the next peer reviewed assessment. The four surveys used; you will see more of them later for our traffic light presentation, I am going to be giving in a little bit. We have some graphs on these indices; so rather than show them now we'll wait and show them later.

The long story short is it is the opposite of what we see with the landings. All are above the time series mean. SEAMAP is the only one that declined, and it declined off its time series high in 2011. Both juvenile indices – we have four indices – I'll at least give that information is the SEAMAP trawl, the NMFS trawls survey, and then two juvenile indices, the VIMS juvenile

survey and the North Carolina Program 195, which is a Pamlico Sound survey.

Both juvenile indices indicate a strong year class in 2012 and above average year classes in 2010. The TC is not recommending doing a benchmark for the same reasons I mentioned before. We would rather wait for more shrimp trawl bycatch information to try to get a better handle on what was our weakest link in the last assessment. We would like the board to consider incorporating a traffic light analysis into the trigger exercise.

As you'll see later, that uses reference points based on a benchmark time period as opposed to this moving scale. By using the 70 percent of the previous two years, we keep getting this lower and lower target to hit. We would rather have a fixed time period; and when I show you the traffic light later, you will see how that works.

We also are not recommending management measures at this time, but the TC would support the board's effort if it wishes to begin the process. Everyone is a little concerned over this continued decline in landings. At the same time the indices are showing something different. It is a disconnect that we have that we also need to work through and try to figure out what is going on with that. I guess from there I will take any questions on this part of the presentation.

CHAIRMAN DANIEL: Questions? Joe.

MR. JOE GRIST: Harry, can you explain possibly some reasons behind the disconnect that is going on? Is there some type of assumption as to why there is such a disconnect between the landings, which are in a decline, and those indices which seem to show just the opposite? I mean, they should track each other in some way. Is there any type of TC discussion on that?

MR. RICKABAUGH: We did bring it up a little bit. It is something we need to look more into, but there was mention from especially SEAMAP that it may occasionally catch age zero fish. Apparently they move offshore in the fall; and

sometimes it occurs before the survey, sometimes after the survey began.

We need to go through the data and see how many age zeros are really in both of these surveys. Another possibility is even if they are adult fish, the offshore surveys may be catching age one, two, maybe threes more predominantly than the commercial fisheries and the recreational fisheries, which are probably targeting older age three through five fish.

It may just be an aspect of the two fisheries are targeting different segments of the population and therefore giving a different signal. To some degree the fish could be, due to climate type issues or at least water temperatures, could be staying more offshore now than they were before; being less available to commercial and recreational fishermen and more available to the trawl surveys. But those are some things we've got to work through to see which one of those is more likely.

DR. WILSON LANEY: I would just observe and ask Harry if the TC has talked about this at all, but it is of concern to me that the trend is downward in the landings and that there is that mismatch with the fishery-independent indices. My concern is if you look at it in context of the forage base or what most of us consider forage base for a lot of the east coast fisheries in terms of where river herring are, where Atlantic menhaden are, now maybe where spot are; if you look at all these little silvery soft-rayed fishes that are preferred prey for a lot of the predator species that we manage, it is just something of concern. I would encourage us all to look at it in the context of the whole community and not just isolated species by species as we tend to continue doing.

CHAIRMAN DANIEL: Other questions for the technical committee? Just to put some of this into perspective, when I started at VIMS in 1995, Luiz Barbieri was working on a life history study on croaker. I remember him getting so excited when he found a four-year-old fish. Most of everything we saw was ones and twos, and he had an extraordinarily difficult time doing his dissertation work because he just couldn't find the fish.

When you would go fishing in the bay, you might see these little croakers; that was it. You just didn't see croakers, and it was all spot. Now what we're seeing on a coast-wide basis, we had 10-year-old croaker. I talked with Luiz about that. It was amazing the size of these croakers, and we just hammered them.

Those slides of those landings, there were millions, 10, 12, 14 million pounds of these 8-, 9-, 10- year-old croakers. It is surprising to me that we would be surprised that we're seeing this significant decline in the population of croaker. But what we're going to hear and what we're going to see in this graphic is it is cycles.

It is man-induced cycles in a boom-and-bust fishery. It is a shame to continue to sit and watch the age structure of that population decline and to see those landings decline and not do anything about it. I hope that as we continue this discussion today, when we get towards the end of it – you know, the technical committee has said they wouldn't object to us moving in a direction that may be the appropriate thing for us to do. I'll leave that up to the board.

MR. BOYLES: We're talking back here offline a little bit about this. I guess where I think we're headed, where I just heard you say is; is there a way for us to smooth out the peaks and valleys associated with this fishery? It is troubling when we're here every year and we talk about these trigger exercises; and at the same time to see scientific advice that doesn't really track with the landings.

At the end of the day, when we go home, our constituents are going to tell us whether they are seeing more fish or they're not or they're landings more fish or they're not. Having said that; I would be comfortable with us initiating some kind of action, some kind of amendment to at least lay out the options; and if nothing else, take it to the public and ask them are you satisfied with fishing on peaks of these fisheries if you are willing to endure the valleys that we're seeing as well?

CHAIRMAN DANIEL: Good comments. Is there anything else before we move on into additional discussions?

MR. SPUD WOODWARD: Well, I think another thing that has to be integral to that conversation is what causes the peaks and valleys? It may be that we take management actions and see the same type of cyclical phenomena, and it may just be inherent in the population. I'm fine with us moving ahead to whatever we need to do to take a more introspective look at it, but I do think we need to be open that sometimes management isn't always going to be the solution to the problem.

CHAIRMAN DANIEL: Anything else? Are you going to go through the traffic light at this point, or the next? Just the spot report, okay.

MR. RICKABAUGH: Okay, now we're going to move on to spot. This trigger was developed for basically as a management trigger and not a stock assessment trigger. We have no stock assessment currently for spot. I will just go ahead and get moving here. The triggers that were included in the Omnibus Amendment were basically five indices; the commercial landings, the recreational landings the NMFS trawl survey, the SEAMAP survey and the Maryland Juvenile Seine Survey.

For this one, any indices that fall below the 10th percentile of its long-term dataset would be basically triggered. If any two indices trigger, but one has to be independent, then the board is supposed to consider management action. But the key here is one of them needs to be independent, as you are going to see in a minute.

The landing for spot, if you look at the commercial landings, it is pretty obvious they are way off. In the early part of the time series, 1950 through the late seventies, the landings were basically bouncing up and down pretty regularly, which is very expected for spot. This is a very short-lived species with very non-consistent recruitment.

But as you see as we move through time, the peaks and valleys keep moving down. The valleys get lower and the peaks get lower. Now in the past seven years we've had four of the lowest landings on record for spot. The lowest landings since 1950 occurred in 2012. Recreationally, very similar, high peaks and

valleys; not as much of a trend in that one, but the past three years have all been low.

2010 was close to the 10th percentile, 2011 jumped up some, but then 2012 is now below the 10th percentile. Basically, both of the commercial and recreational landings have triggered in 2012. The same thing with spot; the independent surveys are showing the exact opposite. Here is the North Atlantic trawl survey. You have got the times series high in 2011 and still a very high index in 2012.

This is more surprising with spot, because it is a short-lived species. It is kind of taking away that maybe we're fishing older fish in the commercial and younger fish are being caught in the trawl. If these are adult fish, they are all going to be one, two, three years old. That is pretty much all there is, a handful of older fish, but almost everything being caught should be age one and two.

SEAMAP, same thing; SEAMAP is a lot more variable, and this one definitely has some means years in it. We've been told that it is the same sort of thing with croaker where they move offshore in the fall. This is more of a mixed age group survey and not really an adult survey; but, again, it is well above the 11th percentile. The Chesapeake Bay seine survey done in Maryland; you can see very variable recruitment, so very high peaks and very low valleys.

But back in the early part of the time series, in the late sixties, early seventies, clean through the mid-seventies, we have very high – even the valleys were much higher than our current – really, our highest peaks reached basically our valleys at that point in time. It is pretty clear it has declined steadily.

We've had a couple of large year classes in the past decade, but we've been pretty much at the low end of the scale. 2012 is above the 10th percentile, but 2011 was not. It actually was below last year. One thing the Spot PRT wanted to ask the board is originally we asked to do both of these triggers, the croaker and the spot, in the summer, so that if something were to come up we would have time to potentially take management action or for the board to take

management action prior to the next fishing season.

If you look at the commercial landings, the “I” stands for what we additionally presented to you, and the F is the final landings. This is where the 10th percentile would have been. For 2011 the 10th percentile actually moved by a couple hundred thousand pounds. It doesn’t sound like a lot, but initially we only missed triggering that by about 14,000 pounds last year.

We had a trigger on the Maryland seine survey. Basically, we are concerned it will work one way or the other. These landings are staying so close to this 10th percentile that if we keep using this trigger, that when we have final landings versus the initial landings we’re presenting now, we either could trigger if they decrease by a little bit or a year in which we say a trigger is and we start management action, the final landings may increase and we wouldn’t have triggered.

There is also another aspect of this. When we first started doing the trigger for this year, we thought that perhaps last year actually did trigger after the update; but that was because when we first calculated it we used up through 2010 to calculate the 10th percentile. But then upon reading the amendment, it says to use the whole dataset; so when you do that, 2011 doesn’t trigger if you use data through 2011.

Basically, if you used 2011 to calculate the 10th percentile, if you’re adding it in, it doesn’t trigger, but 2011 would have triggered if you only went through 2010; if that makes any sense. These things are just so close to triggering that little shifts in the landings could cause a problem. We want to know if you would rather have us wait later until the landings are final or continue as we are.

The trigger did not trip. It has been very close, was very close last year, it is again this year. The PRT is not recommending management action basically for the same reason. We have this disconnect with the surveys and we need to work through why that is. Are these fish actually more offshore and that is why the offshore trawl surveys are catching them, or are they just actually catching a lot of age zero fish

so their numbers are up and the biomass is actually down?

One thing I did forget to mention that I wanted to bring up was when we looked at the SEAMAP – we don’t have to go back, but the SEAMAP in the index that we use for this trigger is in numbers, so basically it is in numbers of fish per trawl. The South Carolina member who does the updates of those for us said that if it had been in weight; in other words, by biomass instead of by numbers, it would have been below the 10th percentile and would have triggered, which is another indication that was probably a lot of age zero fish.

The number index was pretty high, but the biomass index was really low, so it must have been smaller fish. We are not asking for management action at this time, but we would again, like with croaker, support it. We are also interested in something that was mentioned basically in the croaker comments by some board members of should we develop potential management action that could be taken should we happen to trigger?

Right now the amendment states that you only need to consider action, and it doesn’t in any way specify what that action may be. Would you want us to try to develop something that could be in place so that if it triggered, you could vote on a series of actions that could be taken in a more timely manner? We also would like to consider using a traffic light analysis – that is the next part of my series of presentations – to help alleviate this moving 10th percentile, and go to more of a reference period based analysis of these different indices. With that, I would take any questions.

CHAIRMAN DANIEL: Questions on the spot triggers?

MR. PATRICK GEER: I have a question. Of the four surveys, all four of them are the calculations based on multiple age classes; the abundance estimates are on multiple age classes?

MR. RICKABAUGH: The two trawl surveys are. The Maryland survey – for spot there are

only three independent indices. There is the SEAMAP trawl, the NMFS trawl; those are both mixed ages. We need to look at it a little – unfortunately, I don't think there are ages for spot, so you probably have to look at size structure, look at the length frequencies and see if there are potentially age zeros in there or not. The Maryland seine survey is strictly a juvenile survey.

MR. GEER: Right, but don't you think with multiple age classes, wouldn't it be better to just look at one age class, like come up with a juvenile index of abundance from those trawl surveys?

MR. RICKABAUGH: Again, that is something we can look at, but we have to make sure the data is available. I'm fairly sure SEAMAP did age spot for a couple of years but doesn't anymore. I'm not sure about the North Atlantic trawl, if there is actually any age data on spot. We have it for croaker, but I don't know that we do for spot. Again, we could try a length frequency distribution based on known ages in other fisheries and try to tease something out of that.

MR. GRIST: Just a comment and then a question. It does seem a little strange that the federal surveys offshore are picking up these higher numbers of spot and croaker. The fly net comment you made earlier from North Carolina aside, that we're not seeing this in any other offshore fisheries, finding these abundances of spot and croaker out there.

Other people would bring them in if they had them. That just seems a little strange, a little disconnect there just on what is going on offshore. The question is you had a peak in your Maryland seine survey for spot in recent year. Did the winterkill a year or two ago possibly have a big impact on that and maybe took that peak out? There was a large winterkill in the pay towards Maryland about two years ago, I believe.

MR. RICKABAUGH: Yes, the winterkill did follow that year class. When we had that large year class, it was the following winter in which we did have that large kill. We had a quick

decrease in water temperature. The spot stayed longer than they normally do, and we had millions of dead spot. It is hard to know exactly how large that year class was and what proportion was lost to that winterkill, but it certainly moderated it to some degree.

CHAIRMAN DANIEL: All right, what I'm going to do is have Harry go ahead and run through the traffic light process for those of you not familiar with that. It is an interesting new tool that can be used to take measured management approaches depending on the lights. I am looking forward to seeing that. Then I would like to talk about direction from the board to staff on what, if anything, we want to do to address this.

MR. RICKABAUGH: Okay, last year the board had asked the TC to look at developing more or less a management trigger in absence of being able to do an updated stock assessment, something similar to what we have for spot that I just presented. The TC looked at some different options and decided that we were going to explore the traffic light method.

The data you see here; the figures aren't croaker data, it is just some examples out of an actual paper that uses the traffic light method for managing a different species. Some of the main points for this is that it is better at illustrating trends. It also uses reference points or reference time periods to determine what is going to be basically green, yellow or red.

In this particular example that is up there, the dashed line would be kind of what you could think of as a target. Whatever is above that is green. That lower solid line is your red/yellow line; anything below it is red. That is kind of your threshold in the terms we use. There are different ways to set these.

This is what we're referring to as a strict traffic light. Every year has to be red, yellow or green, no combinations. Usually in that you either use something from a stock assessment to derive your reference points. A standard convention is to use the mean as your green/yellow line, so anything that is at or above the mean is green. Anything below moves into the yellow.

Then you use a percentage of the mean, typically something like 60 percent; so if it is 60 percent of the mean, that would be your red/yellow line. Anything below that would be red; anything in between the 60 percent below and the mean itself is yellow. That is how the strict light works. These are useful for both data-poor and data-rich stocks as long as you have some abundance index or even juvenile indices. Any sort of things that track trends within your fishery, you can use this approach.

What we had used is the same four fisheries independent indices that we used for the assessment trigger. Excuse me; these are the same indices we used in the last stock assessment. That is why we've selected those. We also used the same two datasets that we have the hard trigger on. We had looked at trying to incorporate the 70 percent, the two-year average for comparison, but we decided to drop that and just go with this strict and/or fuzzy approach.

We decided to use a reference period of 1996 to 2008. That was done for multiple reasons. In the literature, it suggests that if you pick a reference period for the traffic light approach, that you try to use something that is at least one generation time. That is approximately the maximum life span of the croaker. We had a couple that go beyond 13 years, but that incorporates pretty much the whole generation period.

It is also a time period within the last stock assessment that biomass was at an acceptable level and relative F estimates were low. It also is a time period in which we have increasing landings from '96 through early 2000, and then it begins to decrease. The literature also suggests you should have some movement within your landings and indices within the time period.

You don't want it over one static period. That time period basically incorporates all those aspects. The strict light, as I already described, each year has to have red, yellow or green. The fuzzy traffic light basically; an individual year gets a proportion of color, either yellow/green or yellow/red; you theoretically could be all red, all yellow or all green. But basically the way it

works as we're using; for this analysis we used the time series mean as the center point, so the entire series mean is all yellow.

Then as you move one confidence interval – using the confidence limit if you subtract a confidence limit that is 50 percent red, 50 percent yellow; if you add one confidence, upper confidence limit to the mean, that is 50 percent green, 50 percent yellow; two confidence limits up would be all green; two confidence limits down would be all red.

Basically you are using your data and the calculated confidence limits to come up with your yellow, red and green proportions. Here is a graph to show you how this would work. This is the commercial landings truncated down to 1982 to be comparable with the recreational and to be small enough that we can see it here on the screen.

There are two parts to this. The top part is the strict traffic light, and the bottom bar graph is the fuzzy traffic light. For the strict traffic light we did use the mean and 60 percent of the mean; and we used the process I just described for the fuzzy traffic light. As you can see, for the most part they are showing you a similar trend. It is red. Red would be, of course, where you don't want to be, in the early part of the time series through 1995 using the strict.

You get more information though with the fuzzy traffic light. You can see through 1992 through 1996 you get more and more yellow, which means you're moving more towards the direction you want to be. If you're just using the straight red, you have no idea whether you're going up or down if you are just looking at a straight red or green or yellow light.

As we move through and get into the green proportion, you can see we still don't have much green in the fuzzy; but basically as soon as you have any green, it is going to trip – you are above the mean. You're going to be green with the strict traffic light. Now we're moving towards the end of the scale here. You can see we're moving back towards those decreasing landing.

The strict traffic light has got some red in 2011 and 12 compared to our reference period. The fuzzy traffic light is getting a higher proportion of red. The next slide shows basically the same thing but for recreational harvest; a little more variability in the recreational harvest, but still pretty much a smooth move from lower landings; the landings increased

The time period for the recreational landings is slightly skewed more towards more recent time periods, where it turns green, but then it more rapidly goes to red. It gets a little more difficult to see trends, of course, in a juvenile survey. This is a species that has very highly variable recruitment, so you are going to expect to see these ups and downs. These are our two juvenile indices; the VIMS trawl survey and the North Carolina Pamlico Sound juvenile survey.

You can see some agreement; particularly in 2012 is a good year for both of them, 2010. But there is also some where they disagree. This isn't too surprising as environmental factors can be pretty strong players in juvenile croaker recruitment, so it is different than north to south. You may see some differences.

This is what I didn't show but talked about in the previous one, the two offshore trawl surveys. The top one is the SEAMAP survey, and you can see lots of yellow and green in the more recent years. It is red more towards the 1995 through 2001 time period when commercial landings actually were increasing.

Below that; this is another way you can represent the strict traffic light where you get a little more information. Basically this each year has to be red, yellow or green. But since it is on a bar graph with the two reference points, the time series mean being the upper dotted line and the 60 percent below the time series mean being that lower dotted line; you get a better idea of whether the index is moving up or down and where it is in relation to the different reference points. But again you see a high period for both of these surveys.

Recent times have been some of the highest index values, the exact opposite of what we're seeing in the trawl. For this one; this is to show

you one of the advantages of using the fuzzy light over the strict is that you can combine and make a composite index basically as long as they're the same sort of surveys.

The two trawl surveys in this case are on this bottom graph combined. Now you can have red, yellow and green in the same year; because if one survey is green and one is red, and both have a little bit of yellow; you end up with all three colors. This enables you to look at multiple indices at once and see if they're agreeing, not agreeing; rather than trying to eyeball them side by side.

Just for a comparison, I have the juvenile survey above. That is just the Virginia one, it is not a composite, so it is still just yellow or green or red in a particular year. One thing that struck me when I was looking at this, one of the reasons why I want to go ahead and look and see what the age structure, if we have it, is for these surveys; as we look at 2012, it is a very good juvenile year.

It was for both of the juvenile surveys, and the 2012 was a very good for the trawl survey. That makes me wonder if there isn't age zero fish being caught in those surveys. Okay, the composite of both the commercial and recreational landings is much cleaner. Again, it is not too surprising; they both trended pretty much with each other. Most years are either red/yellow or yellow/green.

You only have a couple transition years where you have a little bit of yellow and a little bit of red; a pretty clear trend between what people are catching recreationally and commercially has been pretty consistent. It needs some fine tuning. Like I mentioned, we've got to go through these indices and make sure we're representing them as what they are; are they mixed age groups or are they truly adults versus juveniles?

We also need for the fuzzy light – the nice thing about the strict is you kind of were setting up your lines of what is red, what is yellow, what is green. When you go to fuzzy you have got to come up with a proportion of red that is unacceptable, essentially. When the proportion

of red reaches, say 30 percent; that is when you trigger.

We would have to come up with a trigger level for the fuzzy approach; and basically we were hoping for some feedback from the board on if they would like us to continue along the lines of using this approach. It is something that the PRT and the TC both like; the TC for croaker in this case, and the PRT for spot. With that, I will take any questions on either this traffic light or how any of these things relate for all three presentations.

CHAIRMAN DANIEL: Very nice; good job. We used this method – actually sent out the traffic light method for blue crabs and sent it out for peer review and actually got a very good response, and used it in North Carolina to manage blue crabs. Not only is it simple and visual; but of all the times that I've been out trying to explain stock assessments and population dynamics to the public, this one really facilitates that nicely.

When you can use this, it does have a lot of advantages to the public. They can see that green and yellow. I am really surprised at how yellow and red these are. We didn't see anything like those. Most of our stuff was more green and yellow in the blue crab fishery. Are there any questions for Harry on the technique? Are there any concerns about continuing to use that and developing it as well for spot, I think is what they planned would be.

MR. BOYLES: I just wanted to comment just to echo what you said. We have started using something very similar in South Carolina as an outreach method. There is so much variability in the data from time to time, so finding a way to normalize the data and to be able to translate that to something that our constituents understand in terms of; are we within one standard deviation of a ten year average, or what have you, and we've developed something very, very similar and it has met with some very positive comments. I would echo your comments and think we should use this where we can.

MR. GRIST: Just curious; how long does the TC think they are going to need to get it kind of

worked out, to get this thing ready for primetime? Are we talking three months, six months? What type of timeframe are we looking, because there is work that needs to still be done, but it is good progress.

MR. RICKABAUGH: So far, basically Chris McDonough has done most of the work on this. I'm more than willing to help pitch in and try to get this done quicker, but I would say it is going to be at least a few months, maybe closer to the six months. I don't want to rush it. I want to make sure we go through these indices, make sure exactly what is tracking what and who we should be combining with whom; look at other things that maybe we haven't looked at yet.

We used what was in the stock assessment. We could potentially look at some other indices or some of the things we looked at as the biological data, changes in age structure. I don't know if it is worth looking into some CPUE stuff with some of our commercial landings. I know we aren't real happy with it; but if we just use trip level effort for more recent years, it wouldn't give us the whole time series, but those are things we might be able to combine where before they showed us conflicting results.

Well, if we combined every state's trip level CPUEs through the fuzzy light approach, maybe it would show us something. There are a lot of different things we could look at. It just depends how much time we have as individuals to dedicate to this and how much the board wants us to explore. To just polish up what we showed so far, we could probably do it in a few months; but to do it and make sure we've got everything we can incorporate in there, it is probably going to take maybe six months or so.

CHAIRMAN DANIEL: I know at least from – I've heard North Carolina is involved with the technical committee, I think; I hope. But we do have an annual age/length key that may be helpful for assigning ages, as well as additional surveys that may be useful at this point; Program 70, which is our independent gill net survey; and our 120, which is our juvenile trawl survey.

That is one of the things – that is our primary survey that we use to identify primary nursery

areas and spot are one of the indicator species for a primary nursery area. I'm sure other states probably have additional surveys that handle spot as well, and you might be able to use in the traffic light. Are there any other questions about that?

I guess the question for the board is do you want to do anything about this? There is a lot of red and yellow. I'm assuming that the spot one would look similar to this. Are there measures that we want to be looking at or thinking about? One thing I was going to propose at least for discussion is looking again at the shrimp trawl fishery.

There is no reason why the South Atlantic Board couldn't have a shrimp plan. We did weakfish implementation in '95 to achieve a reduction in weakfish bycatch in the shrimp trawl, but really haven't done anything formally on a coast-wide basis since then. It might at least be good to see what kind of progress the various states have made since the requirement in the weakfish plan to reduce bycatch. Other states may have done more since then; but to try to get a handle on it, because right now that is an issue-du-jour is shrimp trawl bycatch, and the potential impacts of shrimp trawl bycatch on some of these coast-wide fisheries, particularly croaker and spot and weakfish.

MR. BOYLES: I want to think a little bit about a shrimp plan. I'm guessing, certainly, the states to the south of you; effort has gone way down. CPUEs have gone way up. Our fishermen are far more efficient than they used to be. I want to hold judgment on a shrimp plan. But getting back to some of the discussion about what we want to do, what we might want to do -- I am guessing where we're at is if we want to move and explore some options for addressing some of these yellows and reds is that we're at an addendum.

I would kind of like to see what some of our options may be. I don't know if that starts with a white paper or if it actually is a formal addenda process, but I've seen enough here today that gives me pause that we have probably got to pay a little bit closer attention than I have been paying to some of the things coastwide.

MR. GRIST: Just curious; does staff have available what the current various state regulations are for spot and croaker for those that do have them; is that available?

CHAIRMAN DANIEL: It is in the last document. I think it is in the Omnibus Amendment.

MR. GRIST: Okay, so that is still up to date.

CHAIRMAN DANIEL: I'm not sure if anybody other than Georgia has a spot limit. I don't think -- I don't know about croaker, if anybody has a croaker limit in any way, shape or form. We made a lot of comments back in the old days about the fly net closure south of Cape Hatteras and the bycatch reduction devices in the shrimp trawl fishery.

It was sort of a de facto croaker spot plan was the term we used, and that really we had done enough and didn't need to do more. But since that time, since around 1996, 1997 -- we've seen at least in North Carolina we've seen a fairly significant decline, consistent decline in spot and croaker abundance since all those measures took place.

If we'd have said back in '95 that we were going to actually see the condition of croaker, weakfish and spot get worse with all these actions, we would all have been looked at like we were crazy, but that has been the result. The question is why? We're seeing the same thing, Robert. We're seeing a big reduction in shrimp trawl effort, a big reduction in trips, more efficiency as well.

I assume that means the bycatch has gone down with a 70 percent reduction in effort. I would just throw that out there as what are the potential causes? I mean we're not catching them. Is it another weakfish issue where it is a natural mortality shift? But I think Wilson's point is the key one I'm thinking about, and that is the ecosystem component; particularly for spot, and how important they are as a forage base and what we might be able to do.

To me they are just as important for the inshore fishery as menhaden. There are options out there; I just don't know exactly how we want to move forward, especially in the absence of updated stock assessments. Like I said, I think the traffic light is a stock assessment. I think it could be used to make management decisions.

MR. WOODWARD: Well, timing is everything in life. I'm kind of in a peculiar situation, because at the end of this month I was planning on going to our Board of Natural Resources, asking them to repeal our existing minimum size limits on spot and croaker for the very fact that we have had them in place for years and years and years and have no real science-based reason to have them there.

But if we're about to go down a road that may lead us to that, I need to know, because I don't want to go in there at the end of this month and be back in front of them six months from now or twelve months from now undoing what I just did. We've got enough of that goes on in our world without bringing it on ourselves.

The other thing that I just hope that we'll continue to be very sensitive, because I am still a little rankled about weakfish in terms of the South Atlantic versus the rest of the coast and all, and we took out dose of medicine like we ask everybody else to. But we've got regional dynamics in these fish stocks.

We've got to consider that and make sure that stays in the forefront of our analyses and our interpretation of those analyses, and how we respond to them proportionately, whenever we see indications of problems. But the shrimp trawl issue, there is no doubt, we have seen a drastic reduction in effort, better compliance with TEDs and BRDs. Everything speaks to the impact of trawling being vastly less than what it used to be. In fact, I was offshore diving the other day and actually saw a big school of spot on one of our artificial reefs, which I don't think I had ever seen before.

CHAIRMAN DANIEL: Good comments.

DR. LANEY: I think I heard Harry pose a question to the board which was whether or not

we should wait until landings were final before the TC makes the trigger calculations. I for one would favor that I think as long as it doesn't compromise the board's ability to make any necessary management adjustments. I certainly would favor the TC coming back to us – and that is both TCs for both spot and croaker coming back to us with traffic light proposals.

I think that is a very good way to go. I agree with you; I think that is a type of assessment, and it is very easy for the public to understand. It is much easier for us to understand, too, I think. I certainly would support a move in that direction. I would ask you with regard to a consideration of a shrimp plan, I presume you are talking about something that would cover state waters as opposed to federal waters. We do already have – correct me if I'm wrong, I don't remember for North Carolina, but we have BRD requirements in inshore trawling already? What additional measures might be considered if we decided to go in that direction?

CHAIRMAN DANIEL: I think there are several issues there. One is the evolving technology for the bycatch reduction devices is there. Back in the day when we were doing it – and I don't know how the other states are handling it, but there were several BRDs that were certified by the federal government.

I don't know why they need to be certified by the federal government if we're going to be using them in inside waters. I think that provides us an opportunity if we're working in concert with the weakfish plan to sort of make some modifications to the allowable BRD types at least in inside waters that may be more efficient. There are more designs out there now, and we're moving in that direction in North Carolina unilaterally.

We're doing it and we'll be coming out with a plan very soon on adjusting the allowable BRD types and trying to get more reduction. There was a lot of success in the T-90 skylight panels and various other approaches that are being worked on now by NMFS and others down in the Gulf. There is a lot of promise there, and we're seeing that evolution in the Gulf.

I don't know what type of evolution we're seeing south of North Carolina. I know we have not evolved significantly in our BRD requirements, and I think we're paying for that now. Again going back to the weakfish and croaker circumstances, in the weakfish assessment, when we took the bycatch to the SARC, they just threw it out.

They just said it was so highly variable that it was unusable, so just do your stock assessment on Age 1 plusses, and just eliminate consideration of the shrimp trawl bycatch. In the croaker we got a little different result. It had come back with a better analysis of the shrimp trawl bycatch. Whether that will ultimately be acceptable or not and provide us with – you know, that to me is the gold standard on shrimp trawls; what is the impact of shrimp trawling on these stocks; what percentage of the mortality?

It is kind of like the elvers. A lot of these little – what we've gotten the bycatch down to now is the same size as the shrimp. The size distribution of the fish and the shrimp are almost exactly the same. What is the impact on the populations? Those are questions we can't answer at this time.

It is going to take a coast-wide effort in order to get that answer, and it is not going to come just out of South Carolina or just out of Georgia. That is why I bring that up. But what I am hearing around the table so far is that we like the stop light approach. We would like to see that expanded upon; do it for spot.

But then just to give you an example, what we did with blue crabs was if we had a certain color pattern – we used the fuzzy, and that is not his terminology, that is whoever developed the model called it fuzzy. I don't like that, but that is what they call it. But depending upon the shades and the colors, you take more and more different actions.

That is one of the things, Wilson, that I think the technical committee also asked and brought up is if we do hit the trigger, what do we do? We don't have that plan in place at all. Perhaps one option to consider is to have the TC come back

with the stop lights and some progressive management measures that we would take.

We may want to go ahead and take some; but then if we hit different triggers, that kick in additional measures. The difficulty there is there are some measures that once you implement them, you don't want to keep coming off of them. There needs to be stuff that you deal with that you can drop back on if your traffic light goes back to green, or more green and yellow as opposed to yellow and red. That I think is the challenge for the technical committee to come up with those options. That is one approach.

MR. BOYLES: I think that is reasonable. I recall though that we have in the last several years gone on croaker, I believe, and they're dealing with croaker as one stock. It is no question from our staff's perspective that Cape Hatteras is a huge biogeographical divide. I guess I am going to look to my colleague here from Georgia, Pat Geer.

Pat talks differently than I do, all right, but genetically we're the same species. Yet the Georgia fishery is different than the South Carolina fishery, and our fisheries on the southern end of the range are vastly different from those fisheries north of Hatteras particularly. I think we are going to need to build in some flexibility.

The SEAMAP data show it, I mean a lot of year zeros, a lot of small fish. Why is that? I mean, genetically they may be the same, but why aren't we getting these bigger fish? I think we need to have some of that flexibility built into whatever these mechanisms that we go as a response to the traffic light analysis.

CHAIRMAN DANIEL: I've got to hear you talk, Pat.

MR. PATRICK GEER: Robert, I didn't know if you wanted a response from that or not.

DR. LANEY: Relative to Cape Hatteras as a biogeographic barrier; it may be to some extent, but I'll just note for the record that for larger species like striped bass and Atlantic sturgeon

and some of the shark species that are running around with acoustic tags in them now, when we put that 12 kilometer acoustic listening array out south of Hatteras, it was somewhat of a surprise to us how much traffic we're getting from north of Cape Hatteras going south of Cape Hatteras and vice versa at least for those larger species.

I know that we now have the technology to allow us to put acoustic transmitters in some of these smaller species, so it would certainly be interesting to put a bunch of them out there and see what they do. I believe Joe Hightower – Louis, help me out – at NC State, they did do one study using spot with acoustic transmitters in them to estimate natural mortality.

I think that was done in Slocum Creek off the Neuse River there. Joe had a grad student that did that and we got some rather interesting results. For example, when one of the spot picked up speed at a tremendous rate, it became apparent that the spot and its implanted transmitter had been consumed by a bottlenose dolphin that was rapidly exiting the system.

You learn some interesting things, but I would certainly think that technology might enable us to begin to sort out some of this north versus south difference that we see in some of these fisheries, and especially sometimes when we see apparent differences in age structure, north versus south.

CHAIRMAN DANIEL: Just for clarity in the record, that was red drum that was done in Slocum Creek, and then they did another study with speckled trout that showed a similar thing. We're getting ready this year to start tagging weakfish from a project that we should be getting some information on weakfish out of North Carolina as well.

DR. LANEY: Yes, but there was a spot study also, I'm pretty sure. I'll check on that.

CHAIRMAN DANIEL: I haven't seen that one; I wasn't aware of that one. I did fail to introduce and welcome back Jenny Fay with National Marine Fishery Service. She hasn't been around the table for a long time, but she is

back; so everybody say, hey, to Jenny when you get a chance.

MS. JENNY FAY: I'm happy to be back, Louis.

CHAIRMAN DANIEL: It is wonderful to have you back. So what is your pleasure?

MR. WOODWARD: **Do you need a motion to direct the PRT to proceed with development of the traffic light approach?**

CHAIRMAN DANIEL: I would like that if that is what the board would like.

MR. WOODWARD: **I will make that motion.**

CHAIRMAN DANIEL: Okay, perfect, with a second from Bill Goldsborough. I think the intent would be to ask the technical committee to look at the stop light approach for both species, and then we would get a report on that. Would you like to go ahead and have the technical committee begin looking at alternatives for management if those triggers are met as well?

MR. WOODWARD: Yes, to do the development of the traffic light approach and to also develop concurrently proposed management actions to respond to different conditions of the traffic light analysis.

CHAIRMAN DANIEL: Very well put.

MR. GRIST: Is this spot only or is this spot and croaker?

CHAIRMAN DANIEL: Spot and croaker; both species, unless there is someone who feels otherwise. If we could, Tina when we're doing the press release for this, if we do a press release or if we have something on the website, using the language verbatim that Spud used to explain it. I don't know if he can say it exactly the same way again, but the way you said it I think was perfect.

MR. WOODWARD: Okay, let's see if I can reproduce this: **to develop the traffic light approach for spot and Atlantic croaker and**

propose management options in response to various conditions of that traffic light approach. I hope that is close to what I said. Just to make it clear what I'm hoping that I'm communicating here is that if you get these colors, what do you do; because that is what it is really going to come down to is, okay, if you get yellow, if you get orange or whatever it is, what are you going to do?

CHAIRMAN DANIEL: I think that is what the technical committee was hoping to get out of this discussion. SO, move to develop the traffic light approach for spot and Atlantic croaker and propose management options in response to various conditions of that traffic light approach. Motion by Mr. Woodward and seconded by Mr. Goldsborough. Is there any further discussion on that motion? Seeing none; is there any objection to the motion? **Seeing none; the motion carries.** Timeline.

MS. TONI KERNS: I heard Harry say that they wouldn't want to have to be rushed to finish the traffic light approach. I think that we might be able to have them be done maybe sometime by the end of November. Does that sound reasonable – or December? Then we can then use January to work on the management options and then present back to the South Atlantic Board in February. Does that seem reasonable, Harry, if that is reasonable to the board?

CHAIRMAN DANIEL: Is that reasonable to Harry?

MR. RICKABAUGH: Yes.

MR. BOYLES: I was going to suggest maybe a draft report in the winter meeting; maybe to give you just a little bit more time if you run into something, you run into a wall. I would imagine the potential options that might be available to the board in response may require a little bit more than a month to flesh out; but if we could get a draft report, maybe in the winter meeting.

CHAIRMAN DANIEL: Yes, I think in terms of just the progress. If we don't have a South Atlantic Board meeting, we could always do that in Policy, so that we can have that update.

MR. WILLIAM J. GOLDSBOROUGH: I believe we have a Croaker TC and a Spot PRT; is that the structure we want or do we need a Spot TC?

CHAIRMAN DANIEL: I don't know that we do. If we can get by, I think the PRT and the Croaker TC can handle this traffic light method, and this may be an approach we want to start using more. Once you see it, I think you are going to like it. Once it makes sense to you, I think you are going to really appreciate it. It is an excellent tool for data-poor species, and I can think of several that we might consider.

MR. WOODWARD: Just a comment, we have been using that in our blue crab fishery for a while now, and we developed it in consultation with the commercial fishermen. But the one thing that just sort of thinking ahead is when we get ready to actually formalize what we're going to do in response to various conditions, we just need to make sure that we'll have the resolve to do it, because it is like a lot of things in life; oh, sure, I'll do that. Then all of a sudden you hit that wall and it is like; oh, oh, now – and you committed yourself. It is like standing at the altar and saying those words; you've committed yourself.

CHAIRMAN DANIEL: There is somebody that wouldn't like that analysis very well, Spud.

MR. WOODWARD: I am firmly committed to her.

MS. KERNS: Louis, the Spot PRT is largely made up of biologists. We may actually come back to the South Atlantic Board and ask for a couple of individuals as we begin to develop the management options for some folks that may be more on the policy side of things, for additional help on that.

CHAIRMAN DANIEL: Okay, is everybody good, happy, satisfied? The next item on the agenda is the Spanish Mackerel Addendum I for final approval. Kirby, do you want to take us through that?

**SPANISH MACKEREL
DRAFT ADDENDUM I FOR
FINAL APPROVAL**

MR. KIRBY ROOTES-MURDY: Today we'll be going over the Draft Addendum I to the Omnibus Amendment to the Spanish mackerel, Spot and Spotted Seatrout FMP, which has been available for public comment. This addendum focuses on commercial management measures for the 2013 and 2014 fishing season.

As you can see in the timeline, the public comment period ended last month on July 19, and the board is meeting today to determine final action. There was one public hearing that was scheduled for North Carolina. No one attended, and there was no public comment submitted. For some quick background; in May of 2013 the South Atlantic Board approved the development of an addendum to the Spanish mackerel FMP to allow states to reduce the minimum size to 11.5 inches for the fishing year 2013 and 2014, specifically July through September for the pound net fishery to eliminate the waste of dead discards.

A portion of the Spanish mackerel population entering the estuary pound nets during the summer months are just under the legal size limit of 12 inches fork length. When the nets are bunted and the fish are bailed, the undersized Spanish mackerel are difficult to release alive and quickly die, unlike other species.

The purpose of this addendum is to consider seasonal flexibility in setting the minimum size limit for the Spanish mackerel for the pound net gear type in the commercial sector. Such changes would allow for the conversion of dead discards to minimize waste from the fishery. There are two options for the board to consider.

The first is status quo. This would maintain the current commercial management measures of 12 inches fork length or 14 inches total length minimum size with seasonally changing days in the vessel trip limits and a decrease in commercial quotas if total annual catch limit is exceeded and stock is overfished.

Option 2 is employing the use of an alternative size limit. States may establish a seasonal exemption from the current minimum size limit of 12 inch fork length to 11.5 inch fork length. This exemption would apply to only the pound net fishery during one or more of the summer months of July through September for 2013 and 2014 fishing years only.

If approved, the measure would be extended through board action. If Option 2 is approved, these measures would be reviewed by the technical committee and/or Plan Development Team as part of its annual fishery management plan review. These adopted measures would be implemented immediately upon the approval of the draft addendum. Now it is for the board to consider final approval.

CHAIRMAN DANIEL: Any questions?

MR. BOYLES: No questions; are you ready for a motion? I make a motion that we accept Option 2 as the preferred for Draft Addendum I.

CHAIRMAN DANIEL: Motion by Robert Boyles and second by Bill Cole; that is a motion to approve Option 2.

DR. LANEY: Just a question, Mr. Chairman. Joe and Catherine, do you catch Spanish mackerel in the Virginia pound nets and would that provision apply to Virginia also?

CHAIRMAN DANIEL: Joe can answer his question, but my understanding was, yes, if a state elected to opt in, but you have to be able to characterize the catches and the PRT would review the outcome. I don't know about the pound net fishery.

MR. GRIST: Yes, they do catch Spanish mackerel in the pound net fishery, and it would be an option, but we have been polling our pound netters and we haven't gotten much public response on this, particularly to the point about in the subsample that smaller size.

CHAIRMAN DANIEL: Are there any further questions or comments on the motion? If not; is there any objection to the motion? **Seeing**

none; the motion carries. I think now we'll need a motion to approve the addendum.

MR. BOYLES: Mr. Chairman, I would make a motion that we do approve Addendum 1 to the Spanish mackerel FMP.

CHAIRMAN DANIEL: Thank you, Robert. Motion by Robert Boyles; second by Bill Cole to approve the addendum, which has the one item. Are there any questions or comments? Any objection to the motion? **Seeing none; that motion carries.** Next is the FMP review and state compliance reports for Atlantic croaker and red drum.

FMP REVIEW AND STATE COMPLIANCE REPORTS FOR ATLANTIC CROAKER AND RED DRUM

MR. ROOTES-MURDY: This is a quick review of the Atlantic Croaker Fishery Management Plan Review for the 2012 fishing season. First is the update; the status of management. There have been no changes since early 2011. In 2011 Addendum I changed the management unit for the fishery from two management regions to one coast-wide unit, as well as revised the biological reference points to be consistent with the results of the 2010 stock assessment.

With regards to the status of the fishery, the total Atlantic croaker harvest encompassing commercial and recreational landings for the coast-wide management unit in 2012 was estimated at 14.6 million pounds. This represents the 64 percent decline in total harvest since the peak at 41.2 million pounds in 2001.

Respectively, that is a 61 percent commercial decline and a 73 percent recreational decline. The commercial and recreational fisheries harvested at approximately 80 and 20 percent of the total. This figure shows the recreational catch in numbers of fish. Both the recreational harvest and released fish have generally increased over the time series, but have declined overall during the last decade.

The proportion of caught fish that anglers release have generally increased or remained stable over this time series, reaching to about 66

percent in 2012. The PRT encourages the board to continue the use of circle hooks to minimize recreational discard mortalities. The PRT finds that all states have fulfilled the requirements of Amendment 1. With regard to the *de minimis*, the criteria is that the fishery must be less than 1 percent of the three-year average.

Requests from Delaware commercial sector, South Carolina commercial sector, Georgia commercial and recreational sectors and Florida commercial sectors; all requests qualify for *de minimis* status, but the status does not exempt states from any compliance requirements. With that being said, are there any questions?

CHAIRMAN DANIEL: Questions on the compliance report? **If there are no questions, we will need a motion to approve the FMP review. Motion by Mr. Woodward; second by Dr. Rhodes.** Is there any discussion on approving the FMP review for Atlantic croaker? Is there any objection? **Seeing none; that motion carries.** I'll move on to red drum.

RED DRUM HABITAT DRAFT ADDENDUM I FOR FINAL APPROVAL

MR. ROOTES-MURDY: Next we'll go through quickly the Red Drum Fishery Management Plan Review for the 2012 fishing season. There are no updates to management across the states. All are still operating under the Amendment 2, with transfer authority for federal waters since 2008. With regards to the status of the stock, the next stock assessment is scheduled for 2015.

The total red drum landings in 2012 shown in the shaded area were 1.8 million pounds. This is a 12.5 increase from 2012, and it is 15 percent above the previous 10-year average of 2002 to 2011. For the recreational harvest, this represents 96 percent of the landings in 2012, which is up 94 percent from the landings in 2011. This is shown in the solid white lines.

They've held steadily near or above 80 percent for most of the time series, recently climbing closer to about 100 percent. In 2012, 80 percent of the total landings came from the southern region where the fishery is almost exclusively

recreational. The northern region fishery in 2011 did not record any fishery landings, but in 2012 both New Jersey and Maryland had recreational landings.

Then the recreational harvest is the white bars, and in 2012 registered at 1.8 million pounds, which is an increase from 2011. Breakdown by states is about 56 percent Florida, 21 percent South Carolina, 6 percent Georgia, and about 13.6 percent from North Carolina. This graph shows the recreational catch with the harvest in the blue cross bar and releases in the solid yellow bars. While recreational harvest has been relatively stable, releases have increased over the time series, but being relatively stable over the last decade.

2012 discards were estimated at 5.7 million fish. Anglers release more fish than they keep with the release rate generally near or above 80 percent over the last decade, reaching 92 percent in 2012, shown by the solid line. The last assessment used an 8 percent release mortality rate to estimate the recreational dead discards, which would estimate at about 460,000 dead discards in 2012 compared to 155,000 in 2011.

With regards to state compliance, the PRT finds that all states have fulfilled the requirements of Amendment 2. There are not changes to state regulations. There were requests for a *de minimis* by New Jersey and Delaware. For the criteria, the PRT compares the states two-year average of total landings to the coastwide.

As you can see, New Jersey and Delaware are both below 1 percent. In requesting *de minimis* status, this doesn't exempt states from any compliance requirements. In terms of recommendations from the PRT to the board, the PRT asks that the board continue the moratorium in the EEZ Zone, to consider approval of the *de minimis* status request from New Jersey and Delaware, and to review the prioritized research monitoring recommendations which are included in the FMP review. I think that is it.

CHAIRMAN DANIEL: Questions on the red drum report?

MR. BOYLES: Not a question, Mr. Chairman, but a motion. **I make a motion that we accept the FMP review and that we grant the *de minimis* request from New Jersey and Delaware.**

CHAIRMAN DANIEL: Motion by Robert Boyles, second by Bill Cole. Everybody knows the motion? All right, any discussion? Any objection? **Seeing none; the motion carries.** Congratulations to *de minimis* states. I don't know if that is a good thing or a bad thing. Everything I'm hearing, last year was spectacular at least in the northern group. I think Virginia set the record by a long shot that had been held – I think all the top ten release records came from Florida until last year. I think Virginia went to over 3 million.

MR. GRIST: Well, according to MRIP it was over 2.5 million.

CHAIRMAN DANIEL: Which is like the world record number of releases, and we were about half of that and it was a record for us. We saw some pretty extraordinary recruitment in the northern group. The next item on the agenda is the Red Drum Habitat Draft Addendum I for final approval.

MR. ROOTES-MURDY: This is the Draft Addendum I to Amendment 2 in the Red Drum Fishery Management Plan on Habitat Needs and Concerns. In terms of the addendum's timeline, at the May 2013 South Atlantic Board Meeting, the board approved the addendum for public comment. The public comment period was open from then until June 30, 2013.

There were no public comments received. The habitat addendum focuses on the following sections; specifically habitat that is important to the stock, spawning larval, juvenile, sub-adult and adult habitats of concern, as well as present condition of habitats of concern for coastal estuarine for spawning juvenile, sub-adult, and adult habitat.

The last item was with regards to habitat bottlenecks. For example, in the case of red drum there doesn't appear to be limiting factors in terms of habitat. In South Carolina, for

example, while there may be limited reef habitat, that hasn't limited the population due to the range that the species utilizes at different life stages. With that being said, request to have the board consider final approval of the red drum habitat addendum.

CHAIRMAN DANIEL: Any questions or comments?

DR. LANEY: I would be prepared to make a motion Mr. Chairman, if you're ready. I move to accept Draft Addendum I to Amendment 2 to the Red Drum Fishery Management Plan Habitat Needs and Concerns.

CHAIRMAN DANIEL: Motion by Dr. Laney; second by Mr. Boyles.

DR. LANEY: If I could just to follow up; thanks to the state of Florida and Kent Smith for all the effort that they put into getting that habitat section for red drum updated. I think Kent had a college student intern, a grad student that worked on that plan and did a great job on it.

CHAIRMAN DANIEL: Very good. Any discussion on the motion? Is there any objection to the motion? **Seeing none; that motion carries.**

OTHER BUSINESS

CHAIRMAN DANIEL: All right, that takes us down to other business. Pat will give us the SEAMAP update.

MR. PATRICK CAMPFIELD: I am going to provide a quick funding update on the Southeast Area Monitoring and Assessment Program. A handout is going around with some of the details. The first table gives the breakdown for FY-13 funding among the three SEAMAP regions, South Atlantic, Gulf and Caribbean; as well as the Fisheries Service portion of the funding.

The second table has more detailed allocation within the South Atlantic Region among the three states and the commission portion of

SEAMAP funding. The take-home message is that there have been reductions in SEAMAP funding in both FY-12 of over 6 percent and again in FY-13 of about 5 percent for more than 11 percent cut in funding over the last couple of years.

To date, the program has absorbed the funding cuts evenly across surveys and other SEAMAP projects, but we are reaching sort of a boiling point where if further cuts come through in FY-14, which we've been warned that may happen, we may have to cut back individual surveys.

To date, each of the individual projects has been able to either reduce the number of stations in a survey or reduce lab processing of samples for things like diet studies, but it is becoming a fairly critical situation. Then the back side of the handout is more details on the actual survey accomplishments in recent years, stemming from the SEAMAP annual meeting, which was held just last week. That is all.

CHAIRMAN DANIEL: Thank you very much for that update. That was just something that didn't have time to get it on the agenda. Money is going down. All right, we have got ten seconds, so I would like one more motion. There is this fellow named Harry Rickabaugh, who we all know, who we need to get on the Spot PRT to help us out; if I could get a motion to do that.

MR. O'CONNELL: Yes, I move to add Harry Rickabaugh to the Spot PRT.

CHAIRMAN DANIEL: Thank you Tom; second by Joe Grist. Is there any objection to the motion? **Seeing none; thank you, and thank you, Harry, for being willing to take that responsibility.** Is there any other business to come before the South Atlantic Board?

DR. LANEY: Mr. Chairman, I would just mention for everybody's information that Spot paper that I talked about is hot of the press. It just came out in the transactions in 2013, and I will send it out to everybody for distribution.

ADJOURNMENT

CHAIRMAN DANIEL: Any other business to come before the South Atlantic Board? If not Mr. Executive Director; right on time.

(Whereupon, meeting was adjourned at 3:40 o'clock p.m., August 7, 2013.)