

**PROCEEDINGS OF THE  
ATLANTIC STATES MARINE FISHERIES COMMISSION  
ATLANTIC STRIPED BASS MANAGEMENT BOARD**

**The King & Prince Beach and Golf Resort  
St. Simons Island, Georgia  
October 29, 2013**

**Approved February 4, 2014**

## TABLE OF CONTENTS

<b>Call to Order, Chairman Thomas O'connell.....</b>	<b>1</b>
<b>Approval of Agenda.....</b>	<b>1</b>
<b>Approval of Proceedings, August 2011 .....</b>	<b>1</b>
<b>Public Comment.....</b>	<b>1</b>
<b>2013 Atlantic Striped Bass Stock Assessment Report:</b>	
<b>Presentation of Stock Assessment Report.....</b>	<b>1</b>
<b>Presentation of Peer Review Panel Report .....</b>	<b>12</b>
<b>Discussion of Benchmark Stock Assessment and Peer Review Report.....</b>	<b>14</b>
<b>Discussion of Management Response to Stock Assessment Results .....</b>	<b>27</b>
<b>Consider FMP Review and State Compliance .....</b>	<b>42</b>
<b>Adjournment .....</b>	<b>42</b>

## INDEX OF MOTIONS

1. **Approval of Agenda** by consent (Page 1).
2. **Move to accept the benchmark stock assessment and peer review report for management use** (Page 26). Motion by Pat Augustine; second by Paul Diodati. Motion carried (Page 27).
3. **Move to develop an addendum to adopt the new biological reference points as determined by the 2013 benchmark assessment** (Page 31). Motion by Pat Augustine; second by Loren Lustig.
4. **(SUBSTITUTE MOTION): Motion to substitute to develop an addendum to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points for the Chesapeake Bay and Albemarle/Roanoke stocks, and to implement a 28-inch minimum size and one fish daily limit for coastal recreational fisheries with an equivalent reduction for coastal commercial quotas for implementation in 2014** (Page 32). Motion by Paul Diodati; second by Ritchie White.
5. **Move to divide the question to address the biological reference points and the management measures in separate motions** (Page 34). Motion by Pat Augustine; second by Roy Miller. Motion carried (Page 35).
6. **Divided Question #1: Move to substitute to develop an addendum to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points for the Chesapeake Bay and Albemarle/Roanoke stocks.** Motion carried (Page 35).
7. **Divided Question #2: Move to implement a 28-inch minimum size and one fish daily limit for coastal recreational fisheries with an equivalent reduction for coastal commercial quotas for implementation in 2014.** Motion was defeated (Page 40).
8. **(MAIN MOTION): Motion to develop an addendum to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points (fishing mortality) for the Chesapeake Bay and Albemarle/Roanoke stock** (Page 40). Motion by Pat Augustine; second by Dennis Abbott. Motion carried (Page 40).
9. **Move to initiate an addendum to develop a range of management measures that reduces fishing mortality to at least the fishing mortality target with implementation in January 2015** (Page 40). Motion by Pat Augustine; second by Dennis Abbott. Motion carried (Page 42).
10. **Motion to adjourn** by consent (Page 42).

## ATTENDANCE

### Board Members

Patrick Keliher, ME (AA)	Leroy Young, PA, proxy for J. Arway (AA)
Rep. Walter Kumiega, ME (LA)	Loren Lustig, PA (GA)
Steve Train, ME (GA)	Mitchell Feigenbaum, PA, proxy for Rep. Vereb (LA)
G. Ritchie White, NH (GA)	Bernie Pankowski, DE, proxy for Sen. Venables (LA)
Doug Grout, NH (AA)	Roy Miller, DE (GA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	David Saveikis, DE (AA)
Jocelyn Cary, MA, proxy for Rep. Peake (LA)	John Clark, DE, Administrative proxy
Paul Diodati, MA (AA)	Tom O'Connell, MD (AA)
Dan McKiernan, MA, Administrative proxy	Russell Dize, MD, proxy for Sen. Colburn (LA)
Bill Adler, MA (GA)	Bill Goldsborough, MD (GA)
Robert Ballou, RI (AA)	Jack Travelstead, VA (AA)
David Borden, RI, proxy for B. McElroy (GA)	Rob O'Reilly, VA, proxy for J. Travelstead (AA)
Rick Bellavance, RI, proxy for Sen. Sosnowski (LA)	Cathy Davenport, VA (GA)
Rep. Craig Miner, CT (LA)	Kyle Schick, VA, proxy for Sen. Stuart (LA)
David Simpson, CT (AA)	Bill Cole, NC (GA)
Lance Stewart, CT (GA)	Mike Johnson, NC, proxy for Sen. Jenkins (LA)
James Gilmore, NY (AA)	Louis Daniel, NC (AA)
Sen. Phil Boyle, NY (LA)	Michelle Duval, NC, Administrative proxy
Pat Augustine, NY (GA)	Martin Gary, PRFC
Russ Allen, NJ, proxy for D. Chanda (AA)	Steve Meyers, NMFS
Tom Fote, NJ (GA)	Mike Millard, USFWS
Adam Nowalsky, NJ, proxy for Asm. Albano (LA)	

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

### Ex-Officio Members

Alexei Sharov, Technical Committee Chair

Kelly Place, Advisory Panel Chair

### Staff

Robert Beal

Mike Waine

Toni Kerns

Pat Campfield

Kirby Rootes-Murdy

### Guests

Nancy Addison, GA, Gov. Appt

Kyle Overturf, CT DEEP

Pete Himchak, NJ DFW

Ed O'Brien, Chesapeake Beach, VA

Lloyd Ingerson, MD DNR

Raymond Kane, CHOIR

Mike Luisi, MD DNR

Patrick Paquette, MA Striped Bass Assn.

Lynn Fegley, MD DNR

Vince Ringgold, MSSA

Ken Hastings, Mason Springs Conservancy

Lauren Latchford, Duke Univ.

Charles Lynch, NOAA

Kelly Denit, NMFS

Tom Hoopes, MA DMF

Joseph Gordon, PEW Trusts

David Pierce, MD DMF

Ross Self, SC DNR

Nicola Meserve, MA DMF

Bill Sheldon, Woolrich, ME

Arnold Leo, E. Hampton Baymens Assn.

Ken Hinman, Wild Oceans

Phil Langley, PRFC

Dick Brame, CCA

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in the Lanier Ballroom of The King and Prince Beach & Golf Resort, St. Simons Island, Georgia, October 29, 2013, and was called to order at 8:30 o'clock a.m. by Chairman Thomas O'Connell.

### **CALL TO ORDER**

**CHAIRMAN THOMAS O'CONNELL:** Welcome, everybody. My name is Tom O'Connell. I'm the Maryland representative that chairs the Striped Bass Management Board Meeting. We have a meeting that is probably going to last until lunchtime, so we're going to get started and work through the agenda items as expeditiously as we can.

### **APPROVAL OF AGENDA**

**CHAIRMAN O'CONNELL:** Everybody should have an agenda. Looking at the agenda, we have got a couple of major topics today being the stock assessment review, discuss whether or not there needs to be a management response to those, and the compliance reports. Does anybody have any comments or additions to the agenda? Seeing none; the agenda will stand approved.

### **APPROVAL OF PROCEEDINGS**

**CHAIRMAN O'CONNELL:** You should have received the proceedings for the August 2013 Striped Bass Board Meeting. Are there any comments to those proceedings? Seeing none; those will stand approved as well.

### **PUBLIC COMMENT**

**CHAIRMAN O'CONNELL:** We're at the public comment period. Nobody has signed up from the public, but I will ask does anybody in the public want to make a comment for items that are not on the agenda at this time?

### **STRIPED BASS STOCK ASSESSMENT REPORT**

**CHAIRMAN O'CONNELL:** All right, moving right into Agenda Item Number 4 is the Striped Bass Stock Assessment Report. This is going to

be I think a tag team with Gary Nelson and Alexei. I will hand it over to Gary at this time.

**DR. GARY A. NELSON:** Good morning, everyone. I'm going to just take you through some of the things that we did this time to the benchmark stock assessment. We made some changes to the model and to the data sets that we have used in the past, so I will just review those and review some of the results.

For the benchmark assessment, we had done some work where, as you will see in the document, we tried to increase some of the model complexity to account for some differences we thought were occurring due to selectivity differences between like Chesapeake Bay and the coast. We had to go back and try to split the historical data into regions.

When we did that, there was actually some mistakes that been made that we corrected from 2004 to 2012. Actually MRIP had re-estimated all the recreational estimates, so we had to change and update all the information with those new changes. The time series that is actually available now is different from the one that has been available in the past. For this assessment, for the recreational data, the way we calculated dead releases, we actually went with the new release mortality estimate of 0.09, which is from the Diodati and Richards' '96 paper. We had originally used 0.08, and that was the preliminary estimate of the Diodati and Richards' paper that we just never changed, so we did some significant updates this time.

Commercial landings data all came from the states. All the data that we used in the benchmark were preliminary, and there were some changes. I will show you some of the differences in the landings between the benchmark and then what we used in the final update. Of course, we calculate the commercial discards the same way although we had to re-estimate all the commercial discards back to 2004 because of the changes in the MRIP estimates.

We also updated the release mortality for hook and line to 0.09 instead of using 0.08. Then we

did some of the same things that we normally do is the states apportion their catches and age classes using scales. Again, the benchmark used preliminary data for 2012; and the update, which I believe everyone has, is using the final 2012 data. I will show you some of the changes that occurred.

This graph just shows the percent changes in the harvest. In the upper left-hand corner is the percent change between the final and the preliminary data. The yellow is the estimate for releases, and then the red is for harvest. You can see there were not a lot of great changes between the preliminary and the final except for Maryland, which jumped up about 15 percent. You can see that big red bar.

The commercial harvest only changed a little bit. New York was the only one that changed their final estimates. Then the commercial discards; because of the changes in MRIP and an error that was made, the commercial discards increased between half to about 2 or 2.5 percent. This just shows a summary of the landings in metric tons that were landed by the commercial fishery; and then also the recreational fishery, which is in the red.

You can see that the commercial landings have been pretty much stable since 1998 or so. The red line being the recreational harvest peaked about 2006; has been variable but declining since. This slide just shows the coast-wide removals broken down by mortality sources. The blue here is our estimates of the recreational dead releases. The red is the recreational harvest.

Black is the commercial discards and the yellow is the commercial harvest. You can see that most of the removals are made up of the recreational dead and recreational harvest fishes, and that is about 55 percent of the removals are by the recreational fishery. As I mentioned before, for this assessment we actually split and modeled regional data because we were trying to improve the selectivity estimates.

There is a big difference in selectivity between the Chesapeake Bay and the coast. We

essentially modeled the data as fleets, having the Chesapeake Bay as a fleet and then the coast as a fleet. Because we couldn't split out the commercial discards into regions of the 2003 and prior data, we had to model that as a separate fleet.

You can see this slide just shows the recreational discards in dark blue; the coast in gray; and the Chesapeake Bay numbers in red. As you can see, the coast is harvesting a lot more than the Chesapeake Bay. As you can see, the total trend here has been declining since about 2006. I am just going to show you some of the trends that have occurred in the harvest data from the MRIP estimates. This slide shows three states, Massachusetts, Maine and New Hampshire. Maine is in the red, Massachusetts in yellow and New Hampshire is in blue.

You can see for Maine harvest has declined since about 2007 or so, and it has been pretty low since. Massachusetts has been bouncing around. It went down a bit in 2011 and has bounced back up in 2012. New Hampshire jumped up in 2011 and is back down, but it has been pretty variable and had low catches during the 2007 to 2009 period.

This slide is showing the harvest for New York, which is in red; Rhode Island in yellow; and Connecticut in blue. New York has been increasing but kind of variable the last few years and did decline in 2012. Rhode Island has been bouncing around until about 2007, and so it went down a bit and has been at a lower level. Connecticut peaked around 2006 and has declined, but it has been variable the last few years.

The state of New Jersey is in the red; Maryland in blue; and Delaware in yellow. New Jersey did decline after 2006, increased a little but dropped down in 2012. Maryland peaked in about 2008 and has declined a little bit and dropped in 2012. Delaware had declined after 2008, I think, and has increased a little bit in 2012.

Then for Virginia and North Carolina, Virginia had declined significantly since about 2006; so

has North Carolina, but starting back in 2005 they increased a little bit in the last few years, and then in 2012 there was no recreational harvest in North Carolina, according to MRIP. I am going to show you just the release numbers. These tend to be the small fish because of the size regulations.

Again, Maine is in red, Massachusetts is in blue, New Hampshire is in yellow. You can see around 2005 and 2006, in all three states the number of released fish have dropped significantly and are still pretty low in 2012. For Connecticut in the blue, they have also dropped significantly. Rhode Island, they started about 2006 and they also show the same trend.

New York had dropped a bit – actually dropped a lot from 2011 to 2012. New Jersey, again, the same trend, about 2006 was the peak and the releases have dropped down to the lowest point – well, not the lowest point but lower in 2012. Maryland, also, although they saw an uptick in 2012, which I think is the 2011 year class.

Then Delaware peaked about 2008 or so and has been low and then went up a little bit in the last few years. Then Virginia again peaked in like 2007 or so and it has been low since then. North Carolina, basically the same trend as their harvest; there were essentially no releases in 2012 estimated by the MRIP Program.

This slide just shows you the age composition of the total removals. All I did here was just highlight some of the strong year classes from the Chesapeake Bay. If you look at this last graph in 2012, essentially we haven't had any really strong year classes indicated in the catch, comparing it to the young-of-the-year index from Maryland. In 2012 the peak age in the catch was about age five.

As I mentioned before, we split the data out this time into regions; Chesapeake Bay and then the coast. This just shows the age composition over time, going from 1982 up to 2012. You can see how the progression of the age structure has occurred over time where the larger fish comprised the total catches in the Chesapeake

Bay in the last decade or so; or the composition has been increasing.

The coast has been a bit variable. We have always caught large fish; but if you can look down here at the bottom, you can see these ages filling in as time has occurred, so the age structure on the coast has been expanding, essentially, over time. This just shows the age structure for the commercial discards.

Commercial discards are made up of a lot of discards from the Chesapeake Bay, so this looks very similar to the Chesapeake Bay. Smaller fish are being discarded, but over time some of the larger and older fish are being discarded, also. Okay, just to update on some of the indices this time around; historically we have dropped – we used to have several fisheries-dependent indices.

Massachusetts, we used to develop a commercial CPUE index, but since 2008 or so we have dropped it because we determined that it is really not reflective of abundance. It was more of availability of the fish. This time around we dropped the Connecticut Recreational CPUE because the new person who does it hasn't been able to duplicate the index that was done in the past, and we believe that there was some double-counting since some of the MRFSS stuff was used to develop the index, so we got rid of that.

This time around we also included the Virginia Pound Net Index, which we had originally dropped back in 2007, I think. VIMS had submitted a paper to get us to reinstitute that, so the committee had decided to include that in the assessment this time. Overall, there were essentially 14 indices included.

We have an index we developed from the MRIP data; the Connecticut Trawl Survey. We have the NMFS Trawl Survey, but that we only used up to 2008 because they changed their vessel, and they no longer sample the inshore strata where they used to catch striped bass; so that ends in 2008.

We have the New Jersey Trawl Survey; the New York Ocean Haul Survey, which ended in 2006,

if I remember correctly. We still include that but there are no data after 2006. We have a Delaware Electro-fishing Survey, which is done in the Delaware River; the New York Young-of-the-Year Survey; New York Western Long Island Sound Age One Survey; New Jersey Young of the Year; Virginia Young of the Year; Maryland Young of the Year and Age One Survey.

We have a spawning stock index from the Maryland Gill Net Survey, and then we also include now the Virginia Pound Net Survey. This just shows some of the trends. On the left here are the fisheries-dependent indices. This should be over here. This is the MRIP Index showing how this index peaked about 2000 and has been declining and bouncing; but after about 2006 it has been going down. The Virginia Pound Net has been variable.

This is the New York Ocean Haul Survey; again, it only goes out to 2006. The Connecticut Trawl Survey has been showing a decline. The New Jersey Trawl had shown a decline also in the last few years, and then a bump-up in 2012. The Delaware Electro-fishing Survey has been kind of variable, but down since the beginning of the time series. The Maryland Gill Net Index, which is a measure of spawning stock biomass, has been variable but slightly down over time.

This last index is the NMFS Trawl Survey, which ended in 2008. Then the young of the years – I know these are messy, but things to out is this the Maryland Young-of-Year Index showing the very low 2012 value with the high at 2011. Also seen in Virginia right there; that's the 2011 and 2012; and then New York's young of the year. New Jersey has been down a bit in 2012; New York peaked in 2011 and it has been down a bit – so some general patterns.

Okay, for the modeling we used the same type of models, the forward-projecting statistical catch at age. We essentially estimate recruitment in age one in each year, the fully recruited fishing mortality. We have selectivity patterns that we estimate in four regulatory periods because regulations have changed.

We estimate all the coefficients for the indices that are used to tune the model; and also selectivity for each of the surveys that had age composition. Again, we split the data into fleets. The Chesapeake Bay, the coast commercial discard; this improved the estimates of selectivity and it provided a partial F that you could just add together to get the total.

This time around we actually used an age-specific natural mortality. Instead of just assuming a constant 0.15, we developed a relationship between age and natural mortality that we got from literature and also tagging data estimates of natural mortality. At age one we had an estimate of 1.13; and then from age seven and on it is still 0.15.

We're presenting now in these slides I'll show you just fully recruited fishing mortality instead of the old average F at ages eight to eleven since we have split the data up into fleets. This slide just shows the estimates of fully recruited F for the different regions. Down on the bottom here is the F for the commercial discards.

This is the F for the Chesapeake Bay. This is the F for the coast. You can't really sum these up because the fully recruited F is different between the Bay and the coast because of the selectivity pattern, but you can sum the fishing mortality at age across the areas to get the total. This is what the total is and the total fully recruited F; so this is the pattern.

The estimate in 2012 – and these are all for the updated data, the final MRIP estimates – is 0.2; so you can see that F has been declining since about 2006. This is basically the total I showed you but in a different manner. The dotted lines are the 95 percent confidence intervals; and again our current F in 2012 was 0.2.

This just shows the estimates. The upper graph is the estimates of age one plus; so the abundance in numbers for all the ages with the abundance projected one year ahead based on using the 2012 estimates. Using the 2012 young-of-the-year indices estimates, you can see that because of the low recruitment we had, it has declined up through 2010, and then has

increased because of the 2011 year class and then it is expected to drop because of the low 2012 Young-of-the-Year Index.

Here is the age eight-plus, essentially the large fish, showing a decline since 2006 or so. It is hard to see, but there is a projection here that goes to about – 2013 it shows that the age-plus numbers will decline a little bit. This is the estimates of the female spawning stock biomass with the 95 percent confidence intervals, showing that SSB has been declining since about 2004 or so, and currently we're at about 57,000 metric tons.

This just shows a graph of the total biomass in the population peaking around 2000 and has been slowly declining. It did go up a little bit in 2012 because of the 2011 year class, which were age one in 2012. This just shows the overall recruitment estimates. Remember this is a combined stock model so this doesn't always reflect exactly what is going on in the Chesapeake Bay only, but you can see that the 2011 year class has shown to be fairly large compared to some of the historical estimates.

Retrospective; a retrospective analysis is just a way of looking at if you take away one year's worth of data, how would the new estimates compare to the ones made with the current year data. This just shows that for the fully recruited F, we tend to overestimate F in the current year, and on average it is about 12 percent. We overestimate F in the current year by 12 percent.

The female spawning stock biomass we tend to underestimate in the current year by 14 percent. This just shows if you peel the data back, you get how the estimates compare to the current estimates. It is about average, about 14 percent for the SSB and again 12 percent for the fully recruited F. I am going to hand this over to Alexei, and he is going to talk about the reference points.

MR. ALEXEI SHAROV: I will give Gary a break and I will talk a little bit about the reference points for striped bass. First we'll talk about the current reference points that we're using to date. Our biological reference points

utilize the female spawning biomass and fishing mortality as principal metrics to judge the status of the stock and the fishery.

Each of these metrics, the spawning stock biomass and the fishing mortality, has a target and a threshold that we use to control the fishery. The general concept, just to remind you, we have the first vertical line, the threshold – so we have a minimum spawning stock biomass that we would like to maintain, that we don't want the spawning stock biomass to drop below that line and be in this area.

Once we cross that line, we call it overfished; the status of the stock is overfished. I have to remind the audience that the use of the terminology; when we say "overfished", that doesn't mean necessarily that we're in immediate danger. All that means is that our spawning stock biomass is below our selected threshold.

Depending on the level of uncertainty and depending on the level of risk that we're willing to take, that threshold line could be located in different places; and, therefore, for different species we may select the position of that threshold line according our ability and will to stay precautionary or less precautionary as our knowledge allows to do so.

In addition to the threshold, we have a target spawning stock biomass, which according to certain calculations we believe would be near optimum level, whichever optimum we define as either the biomass that provides the maximum yield. In this case it would be a spawning stock biomass that is equivalent to the maximum sustainable yield.

For the fishing mortality, we have a target fishing mortality. That is where, again, according to theoretical calculations we assume that we will get the maximum of the stock, the threshold line, the limit that we really don't want to cross; and once we cross it, we define this as overfishing. Generally, the ideal place is to be in this area with the smiley face.

Current reference points were defined in Amendment 6 as the threshold for the spawning

stock biomass was selected to be equal to the spawning stock biomass in 1995; so this is not a theoretically based value. This is the value picked empirically. The logic behind it was pretty solid. It was decided by all of us about 15 years ago that the spawning stock biomass of the stock in 1995 is an appropriate threshold because we believed that by 1995 we announced that the population has been fully restored.

We had already seen the population to reproduce successfully; the strongest probably in the modern history of striped bass recruitment of the 1993 year class. Therefore, this was a logical and reasonable selection of the SSB threshold. For the target – well, obviously, you would like to have a target somewhat larger than your threshold; so the target has been selected to be 25 percent larger than the threshold, so it is equivalent to 125 percent of the SSB threshold.

Accordingly, the last time we updated the reference points was at the peer review five years ago at the stock assessment workshop in Woods Hole. At that time the threshold spawning stock biomass was estimated to be equal to 36,000 metric tons and the target at approximately 46,000 metric tons.

Just to recap how the population performed regarding the current threshold, this vertical line represents the spawning stock biomass threshold. As you can see historically, the spawning stock biomass has been increasing. These are mostly earlier data points. The red dots here represent the 2005 through 2010 estimates of SSB and recruitment.

These are the values from the last assessment update prior to this year's review that used the existing reference points. With respect to the fishing mortality, we have also a threshold and target fishing mortality. The threshold fishing mortality was estimated as the  $F_{msy}$  or fishing mortality that corresponds to the maximum sustainable yield.

The last time the technical committee derived this value, we've used four different stock-recruitment models to come up with an estimate of  $F_{msy}$ . These were competing models which

were producing different results. Therefore, the estimates of  $F_{msy}$  vary quite a lot, depending on the choice of the recruitment model.

There was no consensus on one single model, so the solution was to use the average. Nonetheless, that has been accepted by peer reviewers in 2007; so our average  $F_{msy}$  estimate was at 0.34, and that is what we have used until recently to judge the status of overfishing or not overfishing.

The target fishing mortality was also selected to be slightly lower than the threshold; so it was selected to be equal to 25 percent annual exploitation rate. With respect to the performance of the fishing mortality relative to the current reference point, based on the most recent update, is that slide shows you the trend in the fishing mortality versus the threshold, which is – I'm sorry, the target, which is dotted line, and the threshold, which is the red line.

The last update with the current reference points that you have seen about a year ago or so indicated that we were not overfishing and not overfished. Following this summer's peer review of the new benchmark assessment that Gary had presented to you this morning, there were some changes proposed.

No changes to the definition of the spawning stock biomass reference points were done; but the actual numbers have been changed, and I will tell you in a second why. We did propose to revise the fishing mortality rate reference points in such a way that we proposed to define the  $F$  target fishing mortality that we would like to stay at – and this would be the fishing mortality that in the long term would produce the spawning stock biomass equal to the SSB target.

Correspondingly, the  $F$  threshold would be the fishing mortality that would bring us to our selected SSB threshold. Why did we do this; why we felt that there was a need to make those changes. There were several reasons for that. Well, first of all, as I told you already, the estimates of the  $F_{msy}$  that we used in the past were very sensitive to the stock-recruitment models that are being used.

Since we're not certain which one is the most suitable to striped bass, we don't know which one to pick. Depending on which one you pick, you would come up with quite substantial differences in terms of the fishing mortality level. The additional calculations that would investigate the current Fmsy of 0.34 indicated that this would be equivalent to approximately 20 percent of the spawning potential ratio, which to many of us seemed to be too low for the Fmsy.

The spawning potential ratio generally should be higher at the Fmsy. Then, again, because the simulations indicated that if we try to calculate the SSBmsy using stock-recruitment data, that SSBmsy would be larger than our 1995 threshold. There was clearly a disconnect between the Fmsy as calculated based on a theoretical curve and the selected SSB level.

Therefore, the committee decided that we should change that and use long-term projections by drawing from empirical recruitment out of the model since 1990 and use average selectivity which would represent the effect of the fishery on the different age classes and will calculate fishing mortality which will exactly produce an SSB target and an SSB threshold – of course, exactly meaning generally in the long term.

What are the advantages? Well, the advantages would be that the 1995 SSB or spawning stock biomass would be robust and not dependent on model assumptions about stock-recruitment relationships. It also avoids managing to optimum yield for recreational species, meaning that traditionally we are managing to where it is Fmsy, which optimizes the total yield or biomass that is being taken from the population.

In the case of recreational species, it is probably not what necessarily we want to do. In the end this aligns the spawning stock biomass reference points with the fishing mortality target and threshold. If we maintain the fishing mortality at the target, we should on average maintain the SSB at the target and the same to the threshold.

Once we have done that, there are certain inputs that come into the calculation of these reference points. Those are the sex ratio, male to female, and we did not change that compared to the previous assessment. We kept the same maturity information. We revised the natural mortality, so the natural mortality has been increased for the younger ages, which generally works this way.

When you increase the natural mortality, you increase an estimated size of the population, which in turn leads to the reduction in the estimated fishing mortality, and you will see that in a second. We used the new statistical catch-at-age model. In the heart of the model was the Beverton-Holt Stock-Recruitment Model; and we also updated mean weights at age, which are not critical for the assessment but had to be updated.

These are the inputs that come into the calculation of reference points just to show you how things are changing as a result of that. This blue line continuing into the red line would be our understanding of the natural mortality at age; that is, we used it as a constant value of 0.15 for all age groups.

With the updated information, the natural mortality is believed to be much higher at the younger ages, and it declines rapidly and about by age seven it becomes equivalent to 0.15. The selectivity on the age classes has not changed much and therefore did not affect much of the reference point's calculation.

What does change and did change was the calculated spawning stock biomass, and that is a primary effect of increasing the natural mortality rate. Therefore, if more fish are dying at the same level of the harvest, there has to be more fish present in the water; therefore, the model calculates the SSB much higher than the previously used model.

This certainly shows very clearly in the estimated number of recruits. This is what the number of recruits that the previous model would calculate; and that is what the new values of recruitment would be using the new natural

mortality rates. Finally, we're coming to what in the end we have calculated. Let's start with the SSB threshold. Our SSB threshold was estimated at 57.9 thousand metric tons.

DR. NELSON: Those are wrong.

MR. SHAROV: Why?

DR. NELSON: Those are from the benchmark and not the update.

MR. SHAROV: I've updated them.

DR. NELSON: No.

MR. SHAROV: All right, Gary is telling me that my table includes the numbers we have used at the peer review in late July, and they were updated since with the 2012 data. The SSB limit, I have it here as 57.9 thousand metric tons. The updated one is 57.6 thousand metric tons. That is compared to 36,000 metric tons, which it used to be. The SSB target here we have at 72,380. The updated one is 72,023 metric tons.

MR. JOHN CLARK: Alexei, by limit do you mean threshold?

MR. SHAROV: Yes, threshold and limits are being used interchangeably. I should have used threshold. The fishing mortality target I have at 0.75 here; rounded out it is 0.18; and the F limit I have at 0.21 here; and it is 0.219. Well, truly, we're not measuring with the precision to three digits, obviously. The current fishing mortality is 0.2 and an SSB of 58.2. On the right, these are plus or minus standard errors; so these are essentially the 95 confidence limit intervals for those parameters.

Where we are in terms of the new reference points; well, the red vertical line is our new proposed SSB threshold; the green line is our target for the spawning stock biomass. The green dotted line is our new proposed target fishing mortality; and the red horizontal line is our threshold. This was supposed to represent the 2012 data point. It has to be moved a little bit; it has to be right on the border of the red vertical line here; just moved a little bit to the

left, so we are at the border with it but barely touching it.

The reference points probably was the element of the stock assessment that has received the greatest attention at the peer review, but in the end the peer review members agreed with us that this empirical approach is probably the most logical; and if we were to go with the theoretical stock-recruitment curves, that there was too much sensitivity of the results depending on the choice of the model, and at that point this has to be an area of investigation.

For practical use the proposed approach in the end has been decided to be the best to go with. There are a couple of elements that might affect the actual numbers, as Gary mentioned. One is that we do have some retrospective bias, which we have to keep in mind when we use the reference points and compare with the current estimate on where we are.

There is also a potential bias and a desired correction if we will use in the future. We will be able to use in the future aging based on the otoliths versus aging based on the scales. This also tends to change somewhat the results of the status of the stock. Finally, if you do decide to adopt these reference points – at this point I understand this is what we propose and what has been endorsed by the peer review but it requires your action – I'll just remind you that these are coast-wide reference points.

Based on these, we have an F-based reference point specifically for the Chesapeake Bay as well as the Albemarle Sound and Roanoke, which are slightly lower and that the fishing mortality thresholds are slightly lower; so if you adopt those, those should be appropriately adjusted. This concludes my presentation on reference points.

CHAIRMAN O'CONNELL: Thanks, Gary and Alexei, for those excellent presentations. Would there be any objection to letting Patrick Campfield review the peer review results before we open it up for comment and discussion?

DR. NELSON: We've still got more.

CHAIRMAN O'CONNELL: You've got more? All right, we're still going on.

DR. NELSON: I'm just going to show you some of the results that Alexei was talking about. This is the current fully recruited F trajectory from the model compared to the threshold and target. In 2012 here you can see that we're below the threshold and above the target; so we're not overfishing. This is the female SSB trajectory. The horizontal line is the threshold, and you can see that our current estimate is pretty close to the threshold. Although the point estimate is not quite over, so theoretically based on the point estimate we're not overfished.

MR. CLARK: Excuse me, Gary, is that SSB where it would have been under the old model? I mean, is this a higher – your prediction of where SSB actually is, is higher than it was under the previous assessment for right now?

DR. NELSON: Yes. This is the new 1995 SSB level and this is the estimate for the current level. Does that make sense?

MR. CLARK: Yes, but we're much closer now to the threshold than we were using the update from the previous assessment?

DR. NELSON: Yes. This is a table just showing the probability of the 2012 SSB value being less than or equal to the current SSB reference point, the new reference point. If we were right on top of the – if our current SSB level is right on top of the SSB reference, the probability would be 0.5; and if the SSB went below that, then this number would increase above 0.5.

Based on the current model, we're almost right on top of the SSB reference point. However, it is kind of in vogue now to try and correct for the retrospective patterns we see; and if we do that, again we were underestimating SSB in the current year. If I correct for that 14 percent and adjust it, the probability of below the SSB reference point is only about 0.12.

The same thing with the fishing reference point – well, the issue with the reference point, we

don't always have error, so I had to assume some different error around it. If we assume the reference point has no error, our current fishing mortality estimate being greater than or equal to that reference is 0.24; and with error it is 0.31.

But if we correct for the retrospective pattern of overestimating 12 percent, it drops down to 0.04 and 0.13. I am just going to show you some sensitivity runs. These are some of the results comparing the fully recruited fishing mortality and the SSB reference point between what we submitted for the benchmark, which is in red, and the update with the 2012 final data.

You can see just some slight differences between the two. The estimates in the patterns and the trends are pretty much the same. This upper graph is comparing our current updated assessment to the 2011 assessment, which is the last one. You can see that our trends in F are fairly close. The magnitude changed a little bit and our F is a little bit lower in the 2012 model.

The lower graph is the SSB estimate. You can see again because of the natural mortality changes that our SSB levels are a lot higher; and our trends, particularly in the last few years, have become steeper compared to the 2011 assessment. We also did some sensitivity runs – because we want to switch to otoliths, but we still don't have information from a lot of the states to do that, so we did some exercises where we looked at what would happen if we had a proper conversion matrix.

This just shows some of the results if you corrected the scale ages up to 13-plus – a 13-plus model compared to correcting the scales and you had an age 15-plus model, you get some differences where the scale bias-corrected models produce a higher F in some cases than the current model. The SSB becomes a lot higher; and the recruitment estimates in the lower graph become more variable.

The next one just shows comparing the current model with the age-specific natural mortality values to a base model with just a constant natural mortality, and you can see our base model produces lower F's and assuming 0.15 for

all ages. Then the SSB is a bit higher with the model that assumes a constant natural mortality. We're going to get into projections now. Essentially what we did was – and these are in the document – we looked at some simulations where we projected the abundance of the population forward in time to 2017. We essentially calculated a number of different things; the probability of the SSB over time going below the SSB reference point, the new reference point.

For the projections we used current selectivity pattern in 2012; and then for 2013 to 2017 we averaged the selectivity pattern from 2008 to 2012. We didn't assume any type of recruitment function. We just sampled the estimates of recruitment from 1990 to 2012. We did this thousands of times. We looked at different F's.

We also looked at changing – we also did projections where we changed the amount harvested over time to different levels. This is a projection showing what would happen to SSB if you fished at 0.2 over the time period, which is the current F. On the left is the SSB projection; the red is the median value for the thousand repetitions; and then this is the probability of going below the SSB reference point.

Again, anything below about 0.5, that means we're going way below. You can see if we just continue to fish over time, the SSB is going to drop down below the reference point, but it will start to slowly creep up after 2015; and that is primarily due to the 2011 year class coming in. You can see the probabilities here start to decline.

These are projections using constant F from 2014, the upper, and constant F from 2015 to 2017. There are slight differences here. Because we're not changing anything in 2014, the probabilities are lower. Again it still peaks in 2015; but it goes down a bit faster. If we start fishing at 0.18 in 2015, you're still going to get this peak in 2015 where you're below the reference point; but then it slowly goes back up.

This one just shows what happens if we fish at the current reference point of 0.219. You will see the SSB is declining, and it stays a bit below the reference point. There is a high probability of being below it; and then it is going to slowly creep down. The upper one was starting in 2014; and then starting in 2015, if we fished at 0.219, again it is going to peak in about 2015.

The probability of being below is going to peak in 2015 and then slowly the probability starts to decline. This just shows what would happen if we actually fished at the old reference point of 0.34. The SSB just tanks. This is starting in 2014. The probability goes up and it is 1 until 2017. We didn't go any farther than that.

If we started fishing at 0.34 in 2015, again the SSB just tanks; and again the probability of being below the reference point stays at 1. These are just showing some difference levels of F at 0.15. If you start in 2014, we get some quicker recovery. Starting in 2014 you can see the probability doesn't go as high; and the probability actually steeply drops after 2015.

It is pretty similar in 2015; there will be a peak when we will be below it, but then it quickly drops and the reference point starts to go above the – the fishing mortality starts – no, the SSB starts to go above the reference point quickly after 2015. These are just some other levels that if we dropped F down to 0.1; you get a quicker recovery. There is a lag if you start at 2015, but it drops pretty quickly after that.

Then we looked at some constant harvest scenarios. On the left are the median projections of SSB for three different levels of reduction. The purple here is status quo of the harvest that occurred in 2012. The blue here is a 20 percent reduction, and then the red is a 40 percent reduction. You can see the more you reduce, the quicker the SSB goes back up after 2015.

On the right is just the probability of being overfished. Again, it is similar to some of the other graphs which showed where is going to peak in 2015; and depending on the level of reduction, you will still get a drop. The probability of being below the threshold will

start to decline. This just shows for the same constant harvest scenario what the F patterns in the fully recruited fishing mortality would be.

The left just shows the pattern in F and the right is the probability of going over the F reference point. You can see, again, the same thing. This is starting in 2015; if you reduce the harvest – if there was a 40 percent reduction; you get a big drop in F. The dotted line here, by the way, is the F target. If you only dropped 20 percent, it only drops down a little bit.

But if you look at the probability here, we never really go below 0.5 of F being above the reference point; but if we reduce the harvest of these different levels, after 2015 things drop down pretty quickly. This is just looking at whether we implement the 20 percent reduction starting in 2014 or 2015. The blue is the 2015 and the red is 2014.

SSB is still going to decline; but then depending on where you start, you will get a different pattern in recovery. If you start in 2014, the SSB levels will be a bit higher and increasing a little bit faster than if you start in 2015. On the right are the F estimates starting in 2014 or '15; and you can see depending on where you start, if you started later, the dropping F, of course, would go down later.

People always say, well, how do you know the results from the statistical catch-at-age model are accurate? This slide just shows a comparison between the total mortality estimates that you can get out of the model compared to the total mortality estimates that we get out of the tagging data. The blue here is the average for the coast-wide tagging programs.

The red are the total mortality estimates from the producer areas; the Chesapeake Bay, the Delaware Bay and the Hudson River. You can see we're pretty much in the ballpark; the same trends over time and about the same levels of total mortality. Compared to the tagging data, it suggests that the statistical catch-at-age model is fairly accurate. That's all I have.

CHAIRMAN O'CONNELL: Thanks again, Gary and Alexei, for a great presentation and a lot of information. Pat.

MR. PATRICK AUGUSTINE: Excellent presentation! I have a question. In that chart about five or six back, when you talked about if we went to constant mortality for a period of time, to 2014, and then we'd see the SSB slow down a little bit; I guess the question that comes to mind is – first off, a lot of our folks on Long Island are concerned about another crash; do something immediately to reduce the pressure on the large fish.

I am wondering if you can recall what the actual status of the female population SSB was when we had the crash, when we had the moratorium. I tried to vaguely remember what it was, and I thought it was like 20 or 30 million pounds. It was a strange number; but I wonder if you can recall that. Somehow I think we need to make the public aware. There is a lot of emotion here; but the reality of it is that the board will take action to correct where we're going now, but nothing to compare against other than saying it is going to crash and we're going to go back to where we were.

If we can come up with the number about where the SSB was back then, '95, '94, '95, '96 compared to where we will be if we stay if we stay at – assume we stay where we are until 2015, that SSB might be 58, whatever that number is, and it is not going to get down in that danger zone where we're ultimately going to crash. I think it is important to get that information out to the public and on the record. If you could supply that, I would appreciate it.

CHAIRMAN O'CONNELL: Perhaps they can look at that information. I'll take one more question from Jim; and then I really think it would be beneficial for time management to get into the peer review.

MR. JAMES J. GILMORE, JR.: On those projections – and you may have said this, but what was the assumption on recruitment? Was that going to be level throughout the – you know, in every one of those projections, though,

there was essentially going to be – was there any suggestion that if there was an increase in recruitment, those projections would be better?

DR. NELSON: We used the recruitment values from 1990 to 2012 and just randomly drew those from that distribution; so it is about an average recruitment over time.

MR. SHAROV: But the SSB is not going to be.

DR. NELSON: Yes, the SSB wouldn't really be impacted by those until after like 2017 because of the 2011 – that's why the SSB slowly increases regardless of what we did because the 2011 year class is working its way through into the SSB level.

CHAIRMAN O'CONNELL: I imagine we may be asking to pull up those slides again as we consider a management response later in the agenda. Let's go forward and let Patrick Campfield give a presentation on the peer-reviewed stock assessment.

#### **PRESENTATION ON THE PEER-REVIEWED STOCK ASSESSMENT**

MR. PATRICK A. CAMPFIELD: Mr. Chairman, I will briefly summarize the findings from the independent peer review of the striped bass stock assessment. The striped bass assessment was reviewed through the Northeast Science Center's Stock Assessment Review Committee or SARC Process.

The review panel consisted of the Chair and three scientists from the Center for Independent Experts; with the review having an emphasis on only evaluating the science and the assessment and not to consider management implications of those results. The SARC Process results in a number of reports or products, three individual reviewer reports from the CIE folks, a review panel consensus report and an overall shorter summary report.

Most of those are available are on the Center's site. We're still awaiting the final consensus report. Again, the Peer Review Workshop took place in late July of this year. The Chair was Dr.

Cynthia Jones from Old Dominion University. The three independent experts were Robin Cook, John Simmonds and Henrik Sparholt; all from Scotland and Denmark. The overall outcome of the peer review is that the stock assessment was accepted, the stock is not overfished and overfishing is not occurring in 2012.

Again, the panel finds that the stock assessment is acceptable for management use. Next I will go through each individual assessment term of reference and provide the review panel's findings based on each term.

The first term was to investigate all fisheries-independent and dependent data sets; discuss strength and weaknesses of each data source; and evaluate evidence for changes in natural mortality in recent years. The panel concluded the assessment completed this term successfully and had a specific recommendation to reexamine the age-aggregated recreational index using different models and/or by truncating the age range of that index.

The second term was to estimate the commercial and recreational landings and discards, characterize the uncertainty in the data and spatial distribution of the fisheries. Again, the panel concluded that the assessment addressed this term fully. They had two specific recommendations; one, to organize the fishery-dependent data in the model to represent actual fishing fleets; i.e., commercial and recreational components as opposed to the current fishing fleets separated more geographically, Chesapeake, coastal, and then the commercial dead discards.

The panel also recommended the next time around attempting to split the assessment into female and male components to account for the sexual dimorphism. The third term was to use the statistical catch-at-age model to estimate fishing mortality, recruitment, abundance and biomass; also provide retrospective analyses; and to provide estimates of exploitation by stock component where possible for the total stock complex.

The review panel concluded that this term was completed and the current assessment is acceptable for estimating the status of the stock. A few specific recommendations from the panel were to re-evaluate model sensitivity to the Maryland Spawning Stock Survey Index and the Recreational Aggregate Index, because they are primary drivers and have great influence on the results.

Again, the assessment model was based on three fleets that do not correspond to the real fisheries. It may be possible to reformulate the assessment into two or more fleets, each with landings and discard components, allowing the commercial and recreational fisheries to be considered separately.

Again, the panel recommended splitting the assessment into female and male components, given the implications on mortality and the derivation of reference points. Finally, as I think Gary alluded to, explore the potential bias caused by the use of scales to age individuals where we're currently not using otoliths.

The fourth term was to use the tag-return model and associated modeling components to estimate F and abundance from coast-wide and producer area tag programs, along with uncertainty of those estimates. The review panel agreed that the assessment completed this term fully and had recommendations to include tag-estimated mortality in the assessment; either to estimate a new discard survival rate or to confirm that the discard rate that we're currently using is accurate.

There is also a recommendation to explore data on re-releases of tagged fish that may be more typical of fishery releases than those released by the tagging program. The fifth term was to update or redefine the biological reference points and to define stock status. Again, the panel agreed that the stock assessment successfully defined and evaluated stock status.

Relative to the reference points, the assessment produced internally consistent F and SSB thresholds and targets based on non-parametric assumption that future recruitment will be

similar to past recruitment. Overall the approach does not estimate Fmsy or Bmsy explicitly, but provides management reference points that promote high and stable long-term yield.

The sixth term of reference was to provide annual projections of catch and biomass and to use a sensitivity analysis covering a range of assumptions about the most important sources of uncertainty in the assessment, including potential changes in natural mortality. The panel agreed that the assessment conducted the projections correctly and addressed this term.

The projections need to be run with the same recruitment model that is used for calculation of the reference points. Again, the recommendation that the current three-fleet approach makes it difficult to estimate mortality separately from the two main fisheries and suggests reformulating the model into recreational and commercial fleets.

The last term of reference, term seven, was to review and evaluate the research recommendations from the previous benchmark stock assessment and review; identify new research recommendations; and recommend the timing of future assessments. The assessment addressed this term, and they had recommendations for future work on developing an aggregate index from the state surveys. The panel thought that was a high priority.

They also suggested examining issues related to sexually differentiated migrations and consider differences in exploitation of males and females regarding migratory behavior and its influence on the reference points. It suggested evaluating a two-area spatial assessment model to account for the differences between the Chesapeake Bay and coastal fisheries.

The overall findings of the SARC Review the stock assessment was accepted; the stock is not overfished and overfishing is not occurring in the last year of the assessment; aggregating commercial and recreational catch makes the results less clear. Striped bass has a history of ad hoc reference points; and they agreed with

and commended the current assessment's development of consistent F and SSB thresholds and targets consistent with the SSB of 1995.

All of the available data were gathered and used correctly in the assessment models. Assessment was robust to different model formulations, and the modeling approach is stable. The review panel also agreed with the assessment team that the natural mortality is higher at younger ages. We used differential mortality by age in the assessment and they agreed with that approach.

Finally, the estimates of both recreational and commercial dead discards are sensitive to assumed values of post-release mortality. A few more recommendations down the line were to improve the coordination of the fishery-independent surveys to better match the temporal and spatial use of habitats by striped bass; and to attempt to standardize the state or coastal surveys to better address the temporal and spatial availability of the stock and toward providing a more meaningful combined stock index.

I mentioned this earlier, but also to explore the development of a model with separate male and female components. Also, given the non-uniform spatial distribution of the stock by age, try to obtain a better model selection for the recreational index or to simply truncate the age ratio of the index.

The panel also recommended examining whether modeling is consistent between the analyses done for projections and those done to define the biological reference points. They noted that the management targets based on female spawning stock biomass may need to be reconsidered if exploitation of males is significant. That is a quick report based on the SARC Review. Thank you.

#### **DISCUSSION OF BENCHMARK STOCK ASSESSMENT AND PEER REVIEW REPORT**

CHAIRMAN O'CONNELL: Thanks, Patrick. I guess where we are now with the agenda is we need to ask any questions and have some

discussion so that we can get to a point where the board feels informed enough to take action as to whether or not to accept the reference points or not accept them.

If the board wants to accept them, we need to initiate an addendum process. Before we get into any motions on that, I would like to then ask Mike to give a slide just to help the board focus on the different options and scenarios that I think would facilitate our discussion. Before we get to that, I will open it up for some questions on the assessment and peer review. Rob.

MR. ROB O'REILLY: I know there will be a lot of questions; so if it would be acceptable, I'll have just a few questions now and then wait my turn if necessary until everyone has a chance to speak. One thing I noticed on the recreational data was a lot of declines depending on the states that were shown.

I wasn't sure how much was put into effort information, the trip information, because you see some of those stark declines. Certainly, I know in Virginia, right around 2007, economic factors certainly had something to do with less effort. I don't know whether the committee looked at that. That is one question.

Another question relates to the 12 percent and 14 percent for F and SSB respectively on the bias. I guess times have changed, but I know about five or six years ago at the Northeast Fisheries Science Center they had a workshop on retrospective bias. I wasn't there but I did see the PowerPoint presentation.

I think one of the conclusions was you really can't do much to adjust it, so I guess maybe that has changed a little bit, Gary, with what you've done. At the same time I wasn't sure whether those percentages were multi-year; so is that multi-terminal year where you came up with the 12 and 14 percent. That's two questions.

The third question has to do with the times changing again. It wasn't so long ago, maybe a half a dozen years ago, where the thought of including recreational data or commercial data

as both catch and an index was a little bit off limits. Since the aggregate recreational index is a pretty big component in the SCA for the output, I was wondering whether the peer review panel, when that was mentioned by Pat about relooking at the aggregate index, whether there was any concern there or whether or that type of concern has gone away as far as modernization of using information in both the index part and the catch. Thanks.

CHAIRMAN O'CONNELL: Can you guys try to tag team the three questions there?

DR. NELSON: Okay, in terms of the declining catch, I'm not sure if it is effort because we didn't really look at that. It could be, but I think Massachusetts it hasn't been. I can speak with our state. The 12 percent and 14 percent is an average for those five years. Whether to adjust or not, it seemed to be in vogue now. I've sat on a SARC-like committee for NMFS; and they're doing that now even though there is some danger of that, but I think with striped bass the pattern has always been overestimating F and underestimating SSB. I think we were confident in doing that. What was your third question?

MR. O'REILLY: It was on the aggregate index.

DR. NELSON: The MRIP index is based on a subset of data. It is using the raw intercept data, and we only use the offshore and the boat mode data; and, yes, there is some consentuous relationship. We have explored that because I did notice this time where the assessment is fairly sensitive to it. We had a conference call and it was decided to leave it in.

The impact on the assessment has essentially just changed the magnitude of the abundance. The trends are the same. If we did that, the SSB would I think drop a little bit, but the conclusion would be we're still not overfished and overfishing isn't occurring. We need to explore that in the future because we could do a number of things as suggested by the SARC Review, which we had actually already thought of, but we hadn't had time to do that. The panel didn't have any objection to leaving it that way.

MR. THOMAS FOTE: I guess I'm following up on one of Rob's questions. I'll just give you New Jersey's figures. In about 2004 we had 220,000 boats registered in New Jersey. Before Sandy in 2012, we had 160,000 boats registered. That is a dramatic drop in boats. I'm waiting for the figures this year, which will probably show us another 30,000 boats not in the water because of conditions.

Also, if we look our registry this year, the party and charterboat registry is down a third. We show less effort. What also happened during that period of time – and 2007 is the period of time when gas prices went through the roof, and it changed the behavior of striped bass fishermen in a big way.

People would travel from Leroy's area and Loren's area and come to the New Jersey Shore and they stopped making those trips when it cost them fifty dollars for a tank of gas to go back and forth. We've changed that kind of attitude. We also have changed where people used to run around all day and catch and release striped bass because they had a lot of fun doing that, but they burned a lot of gas on the boat. Now they catch their two fish and go home.

When I want to look at all that; did anybody ever discuss that and the social and economic study that we need to do to look at it? Striped bass is a prime subject on it; because when we opened the fishery in the nineties, most of the recreational sector was participating and was doing catch and release; and they were basically not taking a lot of fish because they were all worried about the stock rebuilding.

That has changed basically because we have affected other species like summer flounder, black sea bass, tautog and other species. We now may direct on striped bass more to take home a fish to eat; and so that has changed how we basically should look at striped bass. That is a whole big range of things that we not put into this equation or have we?

Is anybody asking that question at the SAW or the technical committee or are they planning to ask those types of questions, because I think it is

an important part of what we're doing with striped bass and explain some of the drop in numbers because it is fisherman dependent when you look at it. It always stymies me that we don't do that; we don't consider that in the socio-economic. It sits on the back burner. We refine the models but we never do the socio-economics to back it up.

CHAIRMAN O'CONNELL: I think what I hear from Rob and then Tom is in regards to the assessment how sensitive is it to – if fishing mortality was influenced through socio-economics and that was the why effort dropped? I guess the question that is being asked is whether that was considered or not; and if not, what are your thoughts in regards to how it may influence the assessment results?

DR. NELSON: I'm trying to find some slides, but in the 2011 assessment that we did – I didn't do it this time, but I should have showed for the MRIP data the catch-per-unit effort using trips. I have the old slides here if you want to see what those were alike. It did show for the states or like the release information the same trends in the declines that I showed up there when the numbers are adjusted for the number of trips.

The declines in the releases are real. I'm sorry, I was looking at total. This is the total catch per trips; and the trends did show declines. Do you want to see those from the old – okay, up here on this slide, this is the total catch per trip; so it is the release and the harvest information together divided by the total number of trips.

Up in that right-hand corner are the states of Maine, New Hampshire and Massachusetts. You can see the total catch per trip particularly in Maine has – and this goes to 2010 only, and you can see all these three states. Starting about 2006, the total catch per trip have dropped; a similar pattern to just the release numbers.

Down here is Maryland and Virginia showing basically the same thing through 2010; so actually the drops you see in the harvest and the release numbers are not, in some respect, due to people not fishing as much. It is related to how the population is changing. But if you look at

like New Jersey and Delaware, you can see that in Delaware there was a pretty steep drop starting in about 2008 and in New Jersey slowly but variable.

Then you look at Rhode Island and Connecticut showing that their total catch per trip has actually increased. I think I remember at the 2011 assessment update I tried to explain that this – you saw those declining trends on the outskirts of the distribution in Maryland, Virginia and then Maine, New Hampshire and Massachusetts. In the center of the distribution, which is also influenced by the Hudson River, you're getting a different pattern here. Then New York has a completely different pattern showing a decline since the early nineties. That was it.

MR. CLARK: Thank you very much, Gary and Alexei and the stock assessment committee for the impressive work here. I was just wondering when the complete assessment will be available. We have staff that has wanted to review actually everything that went into this so we can get a better idea of how you arrived at all this. We were told that due to the government shutdown, that the assessment should be available soon, but it is not available yet. Do you know when it will be available?

MR. CAMPFIELD: In talking with the Science Center I think just this past week, we got the same answer that due to the government shutdown it is not yet available. It will become available in November, but it was supposed to be ready I think mid-September.

MR. CLARK: Well, just to follow up on that, as I said it is just one of those things where I think it is important for states to be able to evaluate the entire assessment before we vote. Thank you.

MR. DOUGLAS E. GROUT: Thank you, Gary and Alexei, for an outstanding report. I had a couple questions, and I will try not to inundate you with them all at once. The first one, I think, Alexei, you referred to the fact that we have an updated reference point; but in the Chesapeake Bay and in North Carolina, because of

differential size limits, the target reference point will actually be lower. Has that been calculated yet or if we accept the stock assessment with the new reference point, then the technical committee would go and calculate what that would be; correct?

MR. SHAROV: At your direction. We understand that you would have to direct us to do this, and we will gladly do this for you.

MR. GROUT: Hopefully, we can do it because I think that is part of management and clearly something that we would have to take into consideration in any management actions that we're going to be taking or that we might be considering. Finally, I heard the term that considering retrospective patterns are now in vogue. Should I take that as something that the technical committee would feel comfortable with us using as part of our management – considering the retrospective pattern as part of our management action here? Are you comfortable with that now?

MR. SHAROV: I cannot speak for the technical committee because we did not have the specific discussion of that nature. I would guess that based on what Gary said earlier, there certainly seemed to be an evolution in the world of stock assessments. Obviously, at the science center, the federal councils, et cetera, it is becoming pretty regular now the exercise of making an adjustment for the species where we do see consistent bias like in the case of striped bass. I wouldn't want to speak for the committee because they were not charged specifically to discuss that. I would speculate that probably they would agree to do that.

MR. PAUL DIODATI: Thanks, Gary and Alexei and Pat. That was great. Based on what you just pointed out with the CPUE estimates, Gary, I guess it is safe to assume that it is not fisheries' performance changes that are showing stock depletion. Well, the CPUE is dropping and it is not just the overall catches because of something going on in the cost of gas or people's desire not to fish as much.

DR. NELSON: Yes, I would interpret it that way.

MR. DIODATI: And I guess relative to the government shutdown and maybe some of our state scientists that haven't seen all of the information, for whatever reason that may be, the peer review was completed. Your team has done its work. It was presented for the peer review, which I think you actually indicated the type of membership that had, so it sounds to me like regardless of who looks at it tomorrow, this is a pretty well-done assessment at this point and considered to be ready to be used.

DR. NELSON: I would say, yes, I agree.

MR. DIODATI: Okay; and one of our commissioners asked to try to put current conditions in context with historical conditions and he talked about the '95 levels, and I think one of the reference points you're using now is 125 percent of the 1995 SSB; and that reference point is about 72,380 tons.

That means that in 1995 the SSB value was probably at around 58,000 tons, which means that current SSB based on your 2012 projection of about 61 or 62,000 tons is just slightly above where we were in 1995 when we called this a restoration, which was pretty debatable at the time, because I was involved in that; so it was pretty much a jump ball whether or not the resource was officially restored in 1995, but we did declare it for a number of qualifying factors that went into that, that it was restored.

That is where we are at; and I think the period of moratorium and true stock depletion, we're probably at half that that was back in the late 1970's and early eighties; and that was probably at around 25,000 tons. So we're not anywhere near that very low period, but we are at that period where we would be questioning whether or not this resource is restored. Do you disagree with any of that?

MR. SHAROV: Well, maybe it would be helpful for us to look at the graph of the spawning stock biomass through time. I think in the late eighties – like, for example, in 1990

when the fishery was reopened after five years of moratorium, as I recall it the SSB was estimated, using our current assessment results, at probably around 20,000 metric tons, which is one-third of where we are now.

The 1993 record year class has been produced by the spawning stock which was roughly 42,000 metric tons. The 1995 SSB has been estimated to be at 58,000 metric tons. We are definitely not in the area of the consistent – well, the spawning stock being as low as where the recruitment really fails. I think we're still in the area of the sustainable reproduction. If we do define this reference point as our threshold, then, therefore, we will have to act according to the management plan. Once we are below the threshold, we will have to make some corrective actions.

CHAIRMAN O'CONNELL: We can come back to that and just keep moving along. I think it is a really good distinction.

MR. DIODATI: I think we're roughly in agreement, then, based on what I just heard. I guess I want to clarify, based on the assessment and especially the retrospective analysis of where we have been, have we gone below targets or thresholds given our new reference points? I know that you talked about a projection that clearly we will do that; but have we already done that retrospectively?

DR. NELSON: Well, if we use the new F reference point, it would indicate that back between 2004 and 2006 that, yes, we were overfishing at that time. If we also use the same SSB reference point, we weren't overfished; but historically, yes. You can see back in 2006, around there, using the new reference point, we were overfishing for a short time. In 2011 it looks like we were, too, briefly. Now if we go to the SSB, we might have been close in '97; but we haven't been since 1995, anyway.

MR. DIODATI: The result of the peer review is that we should be using the new reference points; and it is also the recommendation of the technical committee that we should be using the new reference points. I guess under the current

management plan we are not, so there is a technical correction that needs to be made.

I guess it is difficult for us to pass judgment on what the next step is. It would be, in my opinion, time to take a correction when you consider that we have already gone in areas where we don't want to be with this fishery. Your projections are telling us that we're going to do that again very soon.

It seems that the corrective action is upon us; but I'm not sure what comes first, the cart or the horse here given that the current plan is still dealing with the old reference points. It is pretty clear to me – and I understand that we've all heard from a lot of our clients out there or members of the fishing public that they're concerned about conditions in the fishery.

As we talk more about that, I think we really want to be thinking about where is the true fisheries' production coming from, the recreational or the commercial fishery; and I think in this case it is truly the recreational fishery. Those members of that community that I'm hearing from are supporting cuts in this fishery. I think this information is doing that; so I want us to be very crystal clear in our thinking as we move forward. But, thanks, that has cleared up some of my thoughts at least on the technical presentation.

CHAIRMAN O'CONNELL: Thanks, Paul; and where we are at this point is we're discussing whether or not to accept the benchmark stock assessment. Then if we do that, we'll move into the next agenda item, which is to discuss the management response. I've gotten about more people on the list, so let's get through that and see we can get to a point of taking action on the stock assessment.

MR. G. RITCHIE WHITE: Like Pat and Paul, I'm hearing from a lot of constituents; and I'm hearing terms like "collapse", "catastrophe", "you're going to manage this like Atlantic cod". My question comes from a comment that says "you've bet the farm" or "you're betting the farm on the 2011 year class". My question is if the 2011 year class had been below average;

where would we be? The second part would be going forward for the next three or four years, if we have below average recruitment, where will we be?

DR. NELSON: If the 2011 year class was below average, we would not see that increase in SSB in the projections. It would probably still go down. If it continues to be below average after 2011, then we will see an uptick in the SSB but then it will go down again as those low levels work itself through, but it will be many years before that happens. Does that answer your question?

MR. DAVID V.D. BORDEN: Mr. Chairman, I guess my question is for Gary. It is very troubling to me that the commercial discards have increased to the extent that they have. The way I look at the figure – I think it is Table 4 – they have essentially gone to the highest levels in the entire time series.

You may have said this and I may have missed it, but I don't understand why. Effort as it is being managed by the New England Council, Mid-Atlantic Council and this Commission has fallen like a stone in most of the commercial fishery; so why are the bycatch discards going up the way they are? That's one question.

DR. NELSON: Well, for the most part they're mostly state fisheries that are catching these fish.

MR. BORDEN: It is state-waters fisheries and is it based on observer data?

DR. NELSON: No; we actually estimate it based on tagging data and also the MRIP data. We essentially take the MRIP data, we have a ratio of the tags that are recovered in the recreational fishery and the commercial fishery, and we just do kind of an expansion from there. There is a lot of error in those estimates.

MR. BORDEN: Okay, and then where are the discards taking place; are they primarily taking place in the producer areas or is it along the coast or both?

DR. NELSON: I think it is mostly from the producer areas. I can't remember specifically. When we estimate the discards, we actually estimate it for the Chesapeake Bay, the coast, Delaware Bay; those three areas.

MR. BORDEN: I just reiterate my prior statement that I think it is problematic that they've gone up to the extent they have gone up. I think it is something the board should look at at some point. My next question for you is the projections you did. You put in implementation 2014; did that assume January 1, 2014; or when in 2014?

DR. NELSON: Yes, it would be January 2014. It is just a value that happens.

MR. BORDEN: Okay, if I understand this correctly, there is no proposed management action to implement any of those changes.

DR. NELSON: No.

MR. BORDEN: My assumption is we would have to rerun those projections because you couldn't put them in place before the fisheries start in the Mid-Atlantic; is that correct?

DR. NELSON: You are correct. You're right but we also have the 2015 projections, too, so you could go with those.

MR. BORDEN: Okay, and then I'd follow up on Ritchie White's – and this is my last one, Mr. Chairman – follow up on Ritchie White's question. I was going to ask a similar question; but this issue of the strength of the recent year class, how accurate are the point estimates of year class strength? I mean, over time when we estimate a year class strength for the first time, each year you get a new data point that validates that over time. How accurate are those estimates; were the initial estimates proven over time?

DR. NELSON: Well, there will be some retrospective issues in that first year, but we've never seen a year class disappear in the data as you're moving forward in time because the

Chesapeake Bay Young-of-the Year Index is a very good indication of what is coming out.

MR. CLARK: I didn't bring up the idea of giving more time to examine this just to delay. We saw some things in the assessment summary that raised I think some interesting questions. One of them, Gary, you showed the chart showing the instantaneous total mortality for both the tag recapture studies and the statistical catch-at-age models that were very similar.

Yet in a previous draft of the assessment report we saw there was also a comparison of the F from the fishing mortality from the tagging studies and from the statistical catch at age; and the F from the tagging studies was much lower than the statistical catch-at-age model. Would that suggest that there could be a difference in the natural mortality calculated from each of these models? Would this tie into the mortality we're seeing in the Chesapeake Bay?

I mean is this not a situation where it is not fishing pressure that is causing some of this. The other thing I was wondering is if spawning stock biomass is somewhat of a proxy for egg production; was any of the striped bass egg work done in the Chesapeake by Maryland looked at as part of the assessment? Thank you.

DR. NELSON: For the comparison of the tagging models and the statistical catch at age, it has always been a contention among the members of both committees, the tagging and the statistical catch age, which model is actually correct.

In my opinion and my impression is a lot of people on the tagging committee believe we can estimate differences in magnitude in the tagging models; but whether the magnitude is correct – the relative difference in magnitudes, but whether the magnitudes are actually correct is another question.

The natural mortality that comes out of the tagging models actually appears to be much higher than we would expect particularly out of the Chesapeake Bay. Because some of those estimates are so large, if they were correct, you

wouldn't see any fish coming out of the Chesapeake Bay. Because the models are estimating those high M's, you get a low F. A lot of us don't really believe those are the true levels of F. That's why in that slide I showed the total mortality because they both estimate the total mortality correctly; but it is when we split it up into M and F that it becomes a problem.

MR. CLARK: But could natural mortality be higher than the SCA Model is showing?

DR. NELSON: I would believe that in the Chesapeake Bay. In some of the resident stuff, it could be higher. On the coast, some of the models estimate a very low F prior to '97 when we assume that is when myco started. I don't really believe those, but then it estimates a higher M after that.

It is somewhere in between but on average the coastal programs, if I remember correctly, come out to average around 0.15, anyway, which is what we're assuming for seven-pluses in the statistical catch-at-age model. We have gone back and forth with this, and the best scenarios that we came up with is the statistical catch at age and changing the M's during those earlier years; your earlier ages.

MR. CLARK: Do you have anything about the eggs?

DR. NELSON: We have looked at eggs. There are not really great studies that have been done. There are a few scant studies done on fecundity. Actually I did some work for the technical committee looking at what would happen if we used fecundity/age relationship that someone had developed from the seventies or something like that. It didn't really change the results much. Because fecundity changes over time with the age structure, at least the total fecundity, we didn't think we would use that because we don't have enough information on what has happened over time.

MR. CLARK: Is that the presence/absence data from the Chesapeake about the striped bass eggs?

DR. NELSON: Ann Richards had done some work when she was at the Chesapeake Biological Labs. I have those data, but they weren't sampled over the entire size ranges and stuff like that. There just hasn't been a lot done, and that is one of the recommendations that the SARC Panel Review also is to look into fecundity and do some more studies.

MR. SHAROV: I guess the questions leads towards the – we have a survey that is being done in the Maryland portion of the Chesapeake Bay by Jim Uphoff, which looks at just the presence/absence of the striped bass eggs – well, not only striped bass but in particular striped bass well.

According to Jim's analysis, it indicates that the SSB is – well, the eggs' biomass is stable. This was not reviewed by the technical committee. Maybe it is worth considering for inclusion in the assessment model in the future as an index or something, but at the moment it is not. I would have to admit that there is always a large variability or measurement in there in terms of the eggs' concentration or even the presence/absence. It is being done only in the Maryland portion of the Bay, but it is certainly an additional independent source of information which should not be discounted.

MR. DAVID SIMPSON: It is really a comprehensive report and summary and I learned a lot, and I have to now go back and study more to understand all the changes that happened and understand them. Mostly my questions relate to recruitment and trying to think ahead to projecting what is to come; and I wondered about – I don't know the history on the choice of the 1990 to I guess 2012 recruitment indices; why that time period.

Early in that timeframe you have fairly low recruitment; then a fairly sustained period of high recruitment; then it dropped in recent years; the last couple of years are high. If you went back further, you would have more low numbers. What is the history on that is my first question?

MR. SHAROV: Well, the technical committee discussed what range of years you use that would be representative of the sort of typical variability of recruitment given general climate conditions that drive the recruitment success. When we discussed which time period to use, we didn't want to limit it to only the period when we had a series of strong year classes like 1993 and on.

Well, look at the history of the past two decades. We had a period of very frequent strong year classes in '93 through 2003, roughly. The most recent years were less successful. We had mostly moderate to below average recruitment. It is a judgment call essentially. There was no specific formal statistical analysis as to which ones to include.

Collectively the group decided that 1990 through 2012 should be representative of the recruitment variability. Assuming that the climatic conditions would be similar in the next decade, then therefore we thought that it would be appropriate to draw from this range of recruitment that we had out of the model.

DR. NELSON: It is also in the updated document, but one stock reviewer had asked us, well, what if we start at 1995 since that is the SSB. You basically get the same answer.

MR. SIMPSON: Okay, I would have thought – I mean, as Alexei said, if you don't include '90 through '94, those are all low recruitment years, that I would think would – you know, if you don't include them, then you're going to project a higher expectation of recruitment off into the future.

If you do include them, then there are more occasional low recruitments in your projections. And then I wondered about the impact of the variable M on the assessment and ability to project recruitment; does it change that at all? That is a pretty profound change; but it is impressive that, as I interpret it, the old assessment that used constant M and the new one, the projections of biomass, those patterns don't seem to change all that much. I just wondered if you could discuss a little more

about what you expected from that variable M and what you saw.

DR. NELSON: The variable M doesn't really impact the SSB much because it is a scalar. Most of the SSB is like age seven and older; and that is when M was constant at 0.15.

MR. SIMPSON: And I think you said that is pretty much played out by the time you get into SSB; but, I don't know, just intuitively think if you change M at age one from 0.15 to 1.1, you'd get a bigger reaction, but I understand what you're saying. And then just as an aside to think about; I wonder how those much larger estimates of numbers at age early in the time series would affect the sort of parallel effort at ecosystem management and assessment and whether there are many, many more mouths to feed now in that model, and what your thought is on that.

I guess we don't really need to address that but I think the group will be interested later on, maybe through MSC or something like that just occurs to me. But to stay on the points here, you did some projections assuming status quo F and so forth; and in practical application terms I'm wondering if it is possible to project what you would expect F to do if we kept at 28 and two fish. That assumes a lot of interpretation of human behavior or projecting behavior; but is that possible to do, what would happen if we just hold measures constant?

DR. NELSON: Well, two at 28 is the general size limit for the coast, but each state has a different modification of that. If it is the same now, we used either the constant F – a constant of 0.2 would be the same – or the constant harvest of using the 2012 harvest over time, it would give you kind of the same thing.

MR. SIMPSON: Okay, so you would expect if we kept the same rules, that even though we're going through this little depression in stock size, that it won't change F. I would think the same rules, lower stock, might increase F; but your thought is that the F will change with the stock size and the regulations won't impact that?

MR. SHAROV: Well, that was the purpose of changing the reference points on fishing mortality where we said we need to find that level of fishing mortality; that if we will maintain it constant, then long term is you will keep us at the target SSB and consequently the fishing mortality – the threshold fishing mortality would keep us on the verge of the threshold SSB.

Our current F estimate in 2012 is 0.2, which is slightly below the threshold; so theoretically if we were able to keep F at 0.2 long term, then long term our SSB would be hovering around the threshold; sometimes above, sometimes below. We are still in the range of the spawning stock biomass where we believe that there is sufficient SSB for the successful reproduction, and primarily the strength of the year class will be defined by the environmental conditions but not by the SSB size in itself.

We have provided one condition; the sufficient number of spawners; therefore, the success of the year classes, we're unable to predict what the weather patterns would be, but we're hoping that the general pattern will be the same. So if we will keep at the F of 0.2, then our SSB will be varying in the future; but in the long term it would be equal of SSB or close to SSB of 1995. That was the whole idea; it falls slightly lower of fishing mortality and keep it constant at the target level, then theoretically we should be able to bring the SSB on average to the level of 1995.

MR. SIMPSON: Okay, I'm trying to remember between questions Paul asked – and can you flip to the fishing mortality estimates, so the stock is going up and then slowly declining. Is the F one available? I'm trying to figure out how we maintain such great consistency in striped bass regulations and we wangle summer flounder all over the place every year trying to maintain that constant F. We have a peak in fishing mortality.

When the abundance peaked, it actually increased and then it dropped a little bit as the stock declined a little bit. I guess I wondered if there was any ability to project not just F into the future but sort of projecting that human

behavior a little bit in response to stock size and what F will do if we don't change our measures.

MR. SHAROV: Well, that is what is called management strategy evaluation or MSE analysis, which is a very comprehensive modeling exercise like economists or sociologists to join that – you know, to be able to predict what humans will decide. The technical community currently is certainly not at that level yet.

CHAIRMAN O'CONNELL: What I'm going to do is I've got four people on the list and then I think the board – I think we have had a good discussion. This has gone through a comprehensive peer review process. I think we would be a point in time that the board decides whether or not to act on, because we need to have sufficient time to discuss a management response if we accept the stock assessment. Pat.

MR. AUGUSTINE: The discussions have been extremely enlightening. I just would like to reiterate one more time or hear you reiterate one more time the fast numbers that Mr. Diodati went through in terms of where we really were so the listeners on the webinar and so can hear where we really were.

The number of 22,000 tons was an approximation of where we were really in the SSB when we were at that lowest level we possibly could have been. If we continue with the constant mortality that we talked about for 2014 and didn't do anything between now and development of a management action plan, from the approximately 58 or 59,000 metric tons we're at now, where would you assume we would be throughout 2014 as we approach 2015; maybe 56,000 metric tons.

I'm trying to get some relative comparison here so folks realize that we really are going to address the issues. But the difference between the bad time, the 22,000 metric tons, and the reasonably good times right now, we have a very good cushion. Can you give us a comparison of those two numbers and just get it on the record so we can put that away?

DR. NELSON: I'm going to show you the projection again.

MR. AUGUSTINE: Read off the numbers; someone should read off the numbers so the public – they can't see it; they can only hear it.

DR. NELSON: The projections suggest that SSB will decline – under status quo, which is the purpose here, it will decline in 2014 just below the reference point, so like 54,000 metric tons or something like that.

MR. AUGUSTINE: 54,000, okay, so we're comparing 54,000 to 20,000. Okay, and then as we go into 2015, if I see that correctly, there still will be slightly a little dip blip there?

DR. NELSON: Right.

MR. AUGUSTINE: Maybe another thousand at best, and then we're going to see a very sharp increase, and it looks like 2016 we're well on our way to getting back up to the 60,000 metric tons and on up beyond that by 2017.

DR. NELSON: Under status quo there will be a slight increase through 2017 of the SSB; and the rest, the red and blue here is if a 20 percent reduction is taken in total harvest.

MR. AUGUSTINE: I appreciate that clarification on the record, and you hit it right. I have one follow-on question. One of our folks from New York passed me a note saying we shouldn't mix the coastal and producer fisheries for total dead discards because we are looking only to reduce coastal SSB.

Mr. Clark raised the question about what the impact was of the mortality rate on the Chesapeake Bay to the overall number; and I think your response, Gary, was, well, the number is so large in the Chesapeake and variable that we had to combine them.

I think that's what you said. Now, what does that do to the coastal – if you looked at the coastal SSB by itself in terms of total discards as opposed to the producer area; is that a significant number? Should we be concerned

about it or should we just say it is what it is?  
Can you help me on that?

DR. NELSON: The commercial discards or the recreational discards?

MR. AUGUSTINE: I would probably say commercial at this time, yes.

DR. NELSON: I want to say that the SSB is the estimate of the female spawning stock that will actually go into the producer areas to spawn so it is –

MR. AUGUSTINE: I would like that clarification; can you expound upon that a little bit?

DR. NELSON: I don't quite understand what the rest of your question was.

MR. AUGUSTINE: He just asked what the effect would be on total discards when you add the producer area to the coastal SSB; and your answer is that's how you figured it out. It includes all of them.

DR. NELSON: It includes everything; yes, it's the total population,.

MR. AUGUSTINE: That's perfect; good, thank you very much. That's all I have; and when you're ready, Mr. Chairman, I would like to make that motion.

MR. RICK BELLAVANCE: My question I guess is kind of spatially in depth. Up and down the coast over the last five or six years we've heard quite a few reports of large numbers of large striped bass being harvested illegally in the EEZ. The Office of Law Enforcement under NOAA and also the United States Coast Guard I believe made illegal fishing in the EEZ a priority for their 2012 and 2013 years.

As far as I understand it, we don't really have any fisheries-dependent data within that part of the range of the fish, and our fisheries-independent data that might capture some of those fish stopped in 2008 when you stopped using the trawl surveys from NOAA.

I guess my question is anecdotally we have heard lots of stories of large numbers of big stripers out in the EEZ as commercial fishermen and a lot of charterboat fishermen see them and they're after them regularly. My question to you is how do those make it into the stock assessment, and is there a possibility that they don't? I'm trying to figure out how they get accounted for.

DR. NELSON: If they're reported like the issue that happened in Maryland a couple of years ago, then they're included in the assessment. Otherwise, poaching is not included in the estimates for the model or in the model. We just don't have a good way of estimating poaching numbers.

MR. BELLAVANCE: So, taking out the illegal harvest, just a general idea that there is a large number of large females out in the EEZ, how would that pile of fish make it through the assessment? I'm just trying to get an idea of where that would fit it.

DR. NELSON: I would say unless someone is so stupid that they report to an interceptor on the coast that they were fishing in the EEZ, they don't make it in any of the estimates. That is one of the issues. We have some other issues, too, like MRFSS doesn't cover some of the major rivers like Hudson upriver, near the mouth or something like that. There is some other information that we don't have for catches that occur in major rivers that aren't included, too. Harvest is likely more than what we have estimated.

DR. KATIE DREW: But when they come back to the rivers to spawn, they should show up in our spawning stock indices, which are different. I think your concern is that there is part of the population that we're not measuring somehow and that we're not accounting for that biomass; like, for example, with what happens with red drum where they move off the shore and we never see them again. But with striped bass, they come back to the spawning grounds to spawn; so they will be picked up in our spawning stock surveys.

MR. BELLAVANCE: Perfect; thanks.

MR. GILMORE: From what I've heard today and also the readings I've done – and I think Paul Diodati's questions before summarized it pretty well – I'm pretty well convinced we're at some point where we need to do some management action, but I wanted to follow up on Ritchie White's comments because I think the – I've gotten several hundred e-mails and most of them are the doom-and-gloom e-mails about shutting fisheries down and collapse and all those other things. I clearly don't think we're at that particular point.

I think we've done a good job from the mid-eighties of putting together a management plan and built-in triggers, and we're hitting those triggers, and we need to take action so that we don't get back to the doom-and-gloom days. One other point – and I think people need to keep this in mind – is the other issue we've had in the Hudson is we've had three pretty poor years of juvenile abundance index. That's one of the other triggers we had added in here.

However, we have a bunch of density-independent issues that happened in the name of Irene, Lee and Sandy the last two years, also, so we have other things going on that are also driving some of these numbers down. We just need to keep that in mind; but again I believe we are at the point where we need to initiate some action. Thank you.

MR. DIODATI: I guess I'll just go back to it once more. The 22,000 tons was a point where we had collapse of the stock and the fishery; so at 54,000 versus 22,000, that is not an attribute we want to – it is not a redeeming quality for us when you consider that our limit is over 60,000 tons and we're at 54,000 in that projection. That is the number we have to deal with.

We don't want to even think about the 22,000. Jim just mentioned that we've hit some triggers. The current plan has five management triggers that balance both the SSB and the fishing mortality rates; five. When you consider these new reference points that have been very clearly presented, we've have hit three of those triggers.

If you go through it, we've hit three. In fact, some of them are so desperate that the F threshold has been exceeded in six of the past nine years that I just saw in the chart.

Our SSB has fallen below target for at least the past seven years. When you consider the new reference points; that is what is going on. What is not clear to me and it wasn't clear in your presentation is that these new reference points are just for the migratory stock, because the Bay fisheries have a separate but parallel management system with its quota-driven harvest program.

We haven't talked much about that, but do these reference points – it is my impression that they don't apply to the Bay fisheries and we don't know what those F rates are yet. I haven't heard what those F rates are, so are we going to see similar information for the Bay fisheries; or is this plan starting to separate in terms of how we're going to move forward? I guess that is my real question.

DR. NELSON: The reference point we showed applied to the whole population, the combined stock population. As Alexei mentioned earlier, if you guys accept the reference points, then we have to go back and recalculate the ones for the Bay. We don't have any for you today.

MR. KELLY PLACE: For Alexei and Gary, can you provide the PowerPoint that Rob O'Reilly alluded to a while ago, from about five years ago, the conference on retrospective bias, provide that to the board; because all those retrospective biases have confounded a lot of things that have been done here ever since the VPA was in use.

I think it would be illustrative for people to understand that. My question for either of the three of you is what are the common causal factors in your opinion that are causing these retrospective biases as far back as the VPA and now with SCA. Are the causal factors the same; can you identify some of those.

Would it be the case that since the otolith versus scaled-based aging is a known discrepancy and

it is also a commonality ever since the VPA and before the discrepancy between scale and otolith-based aging; could that be one of the significant factors that results in these retrospective biases?

Will we ever see one as severe as when we saw a 0.62 in the VPA when the target was 0.3 or 0.31? If you could answer those and possibly provide the board with some more things like the PowerPoint Mr. O'Reilly alluded to, I think it would help a lot to understand not only the nature but the significance of what those biases mean.

DR. NELSON: I guess the staff could go to the NMFS Website and try and get those. I'm not familiar with the PowerPoint presentation. I have the document. I wish we knew what was causing the retrospective; because if that were the case, then we could try and correct, but we don't really know what is causing it.

It could be some catch we're missing – like I mentioned before, poaching. MRIP doesn't go up rivers where we know striped bass harvest is occurring, the Delaware River, like the Merrimac River in Massachusetts. We know there is harvest there but MRIP doesn't go up that far to estimate. It could be that; it is just hard to say.

MR. PLACE: So it is more like inputs to the models and not the models themselves, then, but the common causal factors or just simply the inputs regardless of what model you're using. Could it be the age-and-growth thing? Recognizing that can cut both ways, depending on what you're calculating, but why are we still using that input when we know it is erroneous on some levels? I'm sure there is a reason; I just don't understand why.

DR. NELSON: We're still using the catch because that's all we have.

MR. PLACE: Scales versus otoliths?

DR. NELSON: We're working on that. Not so much the retrospective but in terms of some of the estimates, it will change some of the

estimates. I did do some sensitivity runs looking at that in the document, and you can see there can be differences in the magnitudes of some of these estimates whether we correct for the bias in the scales.

But it is not great and that's what was surprising. It really surprised me that it wasn't that great. We get increased variability in recruitment estimates, so it reflects really what was seen in the young-of-the-year index. If you don't correct for the bias, the recruitment kind of gets dampened a little bit. There are some changes, but I was surprised when I did this exercise it wasn't as great as I had imagined it could be.

CHAIRMAN O'CONNELL: I said after Kelly we would move on to board consideration of – I guess what we're looking for is consider acceptable of the benchmark stock assessment and peer review. Pat Augustine.

MR. AUGUSTINE: Mr. Chairman, it has been a very interesting and informative debate we have had; and, Gary, Alexei and Patrick, you have done an outstanding job. I on behalf of myself and the rest of you, I hope, we can say we appreciate it. **I move that the board accept the striped bass stock assessment report and peer review report for management use as presented today.**

CHAIRMAN O'CONNELL: We've got Paul Diodati as a second. We've got move to accept the benchmark stock assessment and peer review report for management use. Pat Augustine and seconded by Paul Diodati. Is there discussion on the motion? Rob.

MR. O'REILLY: This incorporates the reference points within that?

CHAIRMAN O'CONNELL: That's correct.

MR. O'REILLY: I would like to comment on a little bit of the discussion about the reference points. Before Amendment 6, there was sort of a lobbying to even have the target F be 0.25. It ended up at 0.3 and now it's at 0.18. I think probably for the public's sake they need to

understand that the goal posts have changed a little bit and that has to be a clear message.

It is not that management hasn't been moving ahead all along. The idea that three of the triggers have been pulled is accurate with the new reference points, but it is really not reflective of the last several years. I think that probably is something that needs to be part of the public information document, if approved.

CHAIRMAN O'CONNELL: Thanks, Rob, I agree. Are there any other comments on the motion? All right, all those in favor please raise your right hand – do you guys need a minute to caucus? You've got 30 seconds to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN O'CONNELL: All those in favor please raise your right hand; all those opposed, same sign; any abstentions; null notes. **The motion carries unanimously.**

#### **DISCUSSION OF MANAGEMENT RESPONSE TO STOCK ASSESSMENT RESULTS**

CHAIRMAN O'CONNELL: We're going to move into Agenda Item 5, which is to discuss a management response to the action we just have taken. Mike Waine is going to provide a brief presentation just to try to provide some focus as to the next steps.

MR. MICHAEL WAINE: I won't take up too much time, but I just wanted to go through the fact that with accepting the benchmark stock assessment for management use comes new fishing mortality reference points; and to change the reference points the board needs to consider an addendum through the adaptive management process to do that.

As was mentioned by several board members, we have reference points for the coast-wide stock and then reference points for the producer areas. Right now the reference points for the coastal stock are ready to go. The board would need to consider whether stock-specific reference points are still something that they

want to manage with; and if so, the technical committee would need to be tasked to evaluate what those reference points would be.

To give some sense for potential actions moving forward, one potential pathway would be essentially when does the board want to act on the assessment results. Do you want to take action in 2014 or do you want to take action in 2015? The constant harvest projections were provided to help the board assess what the differences would be in the implementation dates.

What I wanted to provide for context is that acting quickly in 2014, we have the reference points for the coastal stock, but it would take the technical committee a little bit of time to develop the producer areas and so consider potentially splitting this out into two documents if that was a pathway the board wanted to go down more quickly.

I just wanted to provide that perspective before we launch into the discussion of how to handle this, keeping in mind there will be some limitations in working with the technical committee getting what those Chesapeake Bay and Roanoke River/Albemarle Sound reference points would be and potentially doing a management document on those producer areas separate from the coastal stock if you wanted to take different timelines for this.

For the actual document process – this is the action timelines – moving forward, just as a reminder, it takes us essentially two meetings to approve an addendum. If initiated at this meeting, you would approve the document for public comment at the February 2014 meeting. We would have hearings in the spring and then bring back a final document for May of 2014.

If you were going to split the document just like I had talked about as a potential pathway, you could then initiate a separate addendum through that process and have it be finalized later in 2014. That is just a little perspective for moving forward. Thank you.

CHAIRMAN O'CONNEL: Thanks, Mike. I think it provides a good focus of we how we want to act, whether or not we want to initiate something today for 2014 and take some time to do it during 2014 for 2015 or a combination approach. Paul.

MR. DIODATI: I think now that we've accepted these reference points we've got to do an addendum to move to officialize that. Clearly, we are in the situation now that once we adopt these new reference points we have pulled three of the five triggers over the past several years. Looking at that, you would surmise that we should have taken an action a few years ago, at least in 2012 or '13, and we haven't.

I think it is important that we expedite the process to begin actions to reduce fishing in 2014. I think that what I just heard from Mike is a good way to expedite that. I think not only do we not have the information for the producer areas to have a parallel action, but I believe the producer areas as well as the Roanoke/Albemarle Sound Fisheries are probably getting set to begin relative sooner than everyone else.

I think it would be more appropriate to split off actions on those fisheries to begin in 2015. I would support that and I would support separating the addendums, so we have one addendum starting right now to be implemented in 2014 that accepts the biological reference points and initiates actions in the coastal fisheries to be implemented in 2014.

Those actions should be very simple and straightforward. In order to save time, I would recommend a reduction in our recreational fisheries from the 28 and two to 28 and one fish and whatever the equivalent reduction to commercial quotas is necessary to equal that. That is what I would support. Then if states want to do other things – some states have seasons, others have different bag limits – they could accomplish that through conservation equivalency on their own. They can come in and propose something different that meets that biological target.

CHAIRMAN O'CONNELL: Does Alexei or Gary know what percent reduction reducing the coastal recreational creel limit from two to one would yield?

DR. NELSON: Well, we could do that, but I know from Massachusetts I have already done this and it reduces total mortality by only 38 percent; because you've got to remember if you're not harvesting, the fish are being released and there is mortality associated with catch and release, so it is not always a 50 percent reduction.

MR. AUGUSTINE: Point of information, Mr. Chairman. Didn't we have a motion tabled about a reduction of 0.40 from last year that we carried over two years in a – well, yes, I think two years in a row now. There was then an addendum put on the record and we tabled it because we didn't have the stock assessment completed.

I'm not sure what else we were going to address in that particular addendum, and I'm wondering if we could key off of that. In other words, untable it and then take Mr. Diodati's advice and put it on that. It also sounds like we're talking about two addendums or two separate ones rather than lumping them together when we might run into difficulty and some folks are happy with one part of it and not happy with the other part, and then the whole thing collapses. So, your choice, Mr. Chairman.

CHAIRMAN O'CONNELL: Staff is advising me that we dealt with that motion at the last meeting; so we've got a clean slate to start from. Rob.

MR. O'REILLY: I just want to comment on two things; one, the expectation from reducing the bag limit. In Virginia, it has been about five or six years, but in the 35 percent from going from two to one fish without accounting for the discard mortality, so that, of course, would lower that a little bit.

The other thing I wanted to do was to say that one or two addenda is not the big issue. The big issue is the simplicity that Paul talked about. I

think part of the problem in the meeting in Boston was that everything leading up to that was very complicated. Those working on the proposals really never knew what the 40 percent or less reduction in F, how that would exactly be configured or dealt with; so the more straightforward, the better. I agree that maybe seasons are an option as well. It is going to be up to the state plans. I think we do need something that is really straightforward.

MR. FOTE: It seems I've been here over the years doing the same thing. We have been looking at some figures for a period of time and then decided we're going to do a drastic cut. Two years later they're finding out that we didn't need the drastic cuts and had to change the regulations in New Jersey again.

This is a real change in how we manage striped bass recreationally along the whole coast. This is not a minor change. It affects a lot of people's livelihoods; it affects a lot of people the way they do business. It is going to have a huge impact on the recreational fishing industry up and down the coast. I think this is too big to just do an addendum.

I think this is really an amendment process because we have changed what we basically passed. When we opened the fishery, it was two fish at 18 inches and two fish at 28 inches along the coast. That is a major change that has been in place. You know, major regulations have been in place for 20 years and we shouldn't jump to conclusions to change that regulation.

It is one of the few data bases that we have on a stock assessment. I mean, we can't tell what happens with summer flounder with regulations since we've changed the regulations every year. We can't do the same thing with sea bass and a whole bunch of other species. This is the one species where we can have.

In my estimation, we've been here where the sky is falling and a whole bunch of people yammering. I mean, it was Maine sitting at the table for years yammering and they had a good year on striped bass. Whether fish come inshore or not depends on water temperature and with

the bait inshore a lot of times, and that is what it affects especially when we keep the EEZ closed. We see the effects of that happening.

I mean, New Jersey at this time of year usually has a temperature – it used to be in the high forties, fifty-one. We were still 60 degrees two weeks ago. I mean, we're still sitting in the summer and we have done that for the last three years. Last year it was a total loss because the water was warm and then we had Sandy, so that closed all the beaches and most of the fishing down in New Jersey.

I'm really concerned to do this in such a fast-track method when it has such an impact on the people involved that basically harvest these fish and the industry is there. We're not doing any social and economic impact of what will happen going from two fish to one fish. As I said, I look at these figures and I don't see the sky falling.

I see that we're coming to where we have decided where a threshold will be and then we're getting close to that line, but we're not under that line. It is not overfished and overfishing is not taking place. People have been pushing for closing this or doing something. The people that basically send the e-mails are the people that want to do that. The people that are out fishing a lot times, which is a majority of the fishermen I go around and talk to, they're not ready to jump through this type of hoop. I really think we have some real concerns here.

DR. MICHELLE DUVAL: Mr. Chairman, I just wanted to echo a point that Rob O'Reilly made earlier with regard to tripping of management triggers. I think just being really clear in the public information document that based on the previous reference points we had not hit any of those triggers, but these new reference points have resulted in us tripping three of those triggers.

The other thing I wanted to do is just update the board again on the stock assessment update that we're doing in the Albemarle/Roanoke. Whenever this body conducts a new assessment for the coast-wide stock, that automatically

triggers an update for the Albemarle/Roanoke stock. Obviously, the technical committee is going to need to go back and calculate what those new reference points are going to be for the Chesapeake Bay.

It is currently an F target of 0.27, I believe, and that is also the same target that is applied to the Albemarle/Roanoke. Just as an example, when we redid our stock assessment just three years ago, that produced a target F reference point that we used of 0.25, which is lower than the 0.27. Obviously, we would be adopting for the Albemarle/Roanoke whatever target biological reference points that the technical committee comes up with for the Chesapeake, but I did just want to let everyone know that we're in the process of updating that assessment, and we may end up with more conservative reference points than what the technical committee ends up with.

MR. PATRICK C. KELIHER: Mr. Chairman, I want to just follow up a little bit on Paul Diodati. I think his comments regarding 2012 and potentially a missed opportunity to take action based on the information we've seen today is very appropriate. We continue to see dramatic declines in catch within the northeast. I think it is time to take action at this time.

The trends are very disturbing with this fishery. Mr. Fote's comment about Maine having a good year this year, I'm not sure if you have fished there but I did and it was still below average compared to what it has been in years past. I think if Paul was willing to take what he condensed in his last comment and put it into a motion, I would be happy to second it.

MR. ROY MILLER: I guess Pat's comment may have answered my question; but the items that are on the board before us, it was my impression that we were creating a timeline for accepting the terms of reference; and yet at Paul's suggestion we have sort of leaped one step beyond that to considering taking management actions to reduce the recreational creel limit based upon three of the five triggers having been pulled. I'm not sure where we are at this point in time. Are we debating when to start an addendum to accept the terms of

reference or have we already gone beyond that and are now discussing specific management measures; so if someone can help me with that. Plus, I have another question, if I may, while I have the microphone; and that is in regard to recruitment indices.

Mr. Chairman, could you refresh my memory or perhaps someone else; the management trigger for recruitment indices, that was a three-year running average; so in order for that trigger to be pulled, there would have to be a sub-par recruitment in 2014. If that were to occur, that would be a fourth trigger being pulled. Am I right in my recollection of that? Thank you.

CHAIRMAN O'CONNELL: The JAI trigger that was approved in Addendum II, I think, was that if there were three consecutive years that fell below the 75<sup>th</sup> percentile, then it warranted management review. While we did have that in 2012 at least for Maryland and I think some other states it fell below that threshold, this year it is above the threshold, so it kind of resets the clock so we're not in the position, at least for Maryland and Virginia, to be looking at a potential third year of below the threshold in 2014; so it doesn't appear that we will be hitting that trigger at least in the next few years.

In regards to your first question, I think that is the discussion right now. We accepted the benchmark stock assessment, so we need an addendum to adopt that for management use. I think the other point in regards to the management response is trying to decide if we want to do something for '14 or '15. If the board wants to take management action in '14, we probably need to have an addendum that accepts the reference points for the coast and the management response.

If the board decides to not take management action until '15, those actions could be separated. The idea that was put on the table from Paul Diodati is that perhaps we initiate an addendum to adopt the coastal reference points with some management response to the coastal stock; task the technical committee to develop the reference points for the producer areas; and then bring that back to the board and then

consider those reference points and the management response to those; so it will be done through two separate addendums. Does that help clarify, Roy, where we are at; so we're kind of like to decide what is the next step.

MR. GROUT: Mr. Chairman, I agree, based on our management plan, the time has come that we're going to need to take some action here. My personal perspective on this is that what we're trying to do is make some adjustments so that we're attaining the target fishing mortality rate that we have set.

I don't think, from my personal standpoint, that there is going to be a difference between 2014 and 2015 implementation of it; because in both cases we will be heading back towards our target SSB, which is where we want to go. Both of them will start moving things up. The reason I think we should wait to implement an action that will be in place at the beginning of 2015 is twofold; one, I want to get some clarity of what our real target is.

I've heard this comment that now because we have a consistent retrospective pattern, that considering retrospective patterns are now in vogue. I would like to get clear information from the technical committee and the PDT as to whether we should consider this in any management action we're taking. In the past we weren't supposed to consider retrospective patterns. I just want to make sure that we are all clear on what our target is right now. It could be not considering the retrospective pattern and I just want to make sure this board is all together on what our target is.

The second is that I believe because we're managing the striped bass stock as a whole, I think that both management actions for the Chesapeake Bay and the coastal areas should be moving together in the same management action. Whatever changes we're going to be making for the coast, we should have some comparable management action for the Chesapeake Bay states and North Carolina, the other producer areas.

That's where the initial fishing mortality on this stock is taking place because they have lower size limits. I think it would be prudent for this board to take action at the same time on this. I will be prepared to make a motion or a substitute motion depending which way we go to try and have us initiate an action that would be going at the same timeframe.

CHAIRMAN O'CONNELL: I've got two more speakers and then perhaps we can get a motion on the table to focus the discussion. Bob.

MR. ROBERT BALLOU: Thanks to all for a very informed and thoughtful discussion today. I've learned a lot. My sense as to where I think we should go is very similar to that just expressed from Mr. Grout. I like the idea of rolling together the reference points with regard to the coastal stock and the producer areas together with a management review, if you will.

I don't see the need for a rush-to-management response, but I do certainly see the need for a management review in accordance with the information generated from the stock assessment. Perhaps most importantly I would want to see any action taken to be effective for the 2015 fishing year.

I just think from a practical standpoint it would be very difficult, if not impossible, for a state like Rhode Island to implement new management measures for the 2014 season given the timeframes that we're looking at here. I would support a motion that sounds very similar to the one that Mr. Grout was suggesting. Thank you.

MR. AUGUSTINE: Mr. Chairman, I would like to make that motion. **I move that we go forward with a draft addendum to implement the new reference points effective January 1, 2014.** I would like to hold the second motion. Either Mr. Grout or Mr. Diodati, if they have a preference to make the second motion – let me get a second on that first, please.

CHAIRMAN O'CONNELL: All right, let's get it on the screen and make sure we get it right first.

MR. AUGUSTINE: I would like to have it separated. I would like to have the reference points separated based on the benchmark; and then the second one stand alone because there will be some options put in it what specifically we'll do in terms of management, and I would like to see that effective January 1 of 2015. It may require a substitute motion by someone else.

CHAIRMAN O'CONNELL: **All right, Pat, are you okay with the wording that staff put up there; "Move to develop an addendum to adopt the new biological reference points as determined by the 2013 benchmark assessment"?**

MR. AUGUSTINE: Yes, Mr. Chairman, that is excellent.

CHAIRMAN O'CONNELL: All right, do we have a second to the motion? I've got Loren. All right, discussion on the motion. Doug.

MR. GROUT: Clarification, Pat; are you including new reference points for the Chesapeake Bay in this motion, which we don't have?

MR. AUGUSTINE: I'm hesitant because there is underway some other reassessment by Albemarle. Now, is that a stand-alone? Let's get some clarification on that before I say yes or no. If it includes the Chesapeake and the other and it is appropriate to include them based on what our technical committee has told us, then I would say yes. I would like to get a response to find out if it is better to do it that way. I do not want to rush an assessment that is going on if that is going to create a problem for several of our –

MR. GROUT: Yes, just for clarification, I meant for Chesapeake Bay and North Carolina. That's my question.

MR. AUGUSTINE: Mr. Chairman, can I get clarification from the states that are affected on the Albemarle and the other? If not, we'll just include it and then let them discuss whether they want to substitute that. Let's make it inclusive.

Thank you, Mr. Grout, make it inclusive with the Chesapeake and –

CHAIRMAN O'CONNELL: So can we add wording to that to make it clarify that this addendum would include reference points from the coast as well as the producer areas.

MR. AUGUSTINE: And producer areas unless there is absolute problems with that.

DR. DUVAL: I certainly don't have a problem with including the biological reference points for the producer areas. All I was saying is that we do our own assessment for the Albemarle/Roanoke stock. One thing I just wanted to clarify, based on a comment that Doug made, the Albemarle/Roanoke is not a producer area in the sense that the Chesapeake Bay is.

Our JAI is not included in the coast-wide stock assessment at all. We have a very small percentage of out-migration. We've just had some recent work done on that and has been accepted for publication. It has been peer reviewed now showing sort of a size dependency on out-migration. I did just want to clarify that for the record.

MR. AUGUSTINE: To that point, Mr. Chairman, that's fine – then with the Chesapeake, we're all set.

MR. O'REILLY: I share the idea that this can go forward. I think the technical committee understands this; we have a tag-based fishing mortality rate that is for the Chesapeake Bay. We have had a single value. I'm not really positive that it is – it has been called a target; so when you talk about biological reference points, it is a little bit different in that since 1995 there has just been what is called a target fishing mortality rate. There hasn't been the same situation with a limit or threshold and a target, but I think the technical committee probably can do something there.

MR. DIODATI: It seems to me that we've been rushing this decision since 2011; but given that, **I would like to make a substitute motion,**

**which I don't think I'm going to have much support from the board, but I will make it, anyway. It is add to this motion the language that was on the screen a few minutes ago.**

CHAIRMAN O'CONNELL: Can we try to work to get that on the screen?

MR. DIODATI: It would start with "and to"; so it is all the existing language plus the supplemental language that was on the screen.

CHAIRMAN O'CONNELL: I think the staff understands. Let's give them a second to put it on the screen for review and then we'll see if there is a second for that. While we're waiting for that, in regards to moving forward an addendum for the reference points, that action, if approved, would task the technical committee to develop the stock-specific reference points for the producer areas. That would be brought back to the board in February under consideration as an addendum and then going out for public review. Paul, are you good with that language on there?

MR. DIODATI: It doesn't include the language that was in Mr. Augustine's motion.

CHAIRMAN O'CONNELL: Okay, staff, what we need is Pat's main motion substituted to include the management response for the coastal area.

MR. DIODATI: And then add where it starts "and to implement".

CHAIRMAN O'CONNELL: I think all we need to do is take "and to implement" and add that to the original motion. While we're waiting, Alexei, do you want to make a clarification in regards to the biological reference points for the producer areas?

MR. SHAROV: Yes, I just want to reiterate what Mr. O'Reilly had mentioned earlier that with respect to the Chesapeake Bay Biological Reference Point, there is only one single reference point for the fishing mortality that has been historically developed. Unfortunately, we don't have an ability to produce an estimate of

the spawning stock biomass like with the statistical catch-at-age model we do with coastwide.

We were unable to methodologically do this just for the Bay area. For that reason we have only F-based reference point, which was called the target reference point. I just want to get a clarification from the board that there is no expectation of the production of the SSB reference points, because that would be a challenge to the technical committee to do so; so that you know it now and not ask us how come that you didn't do this thing three months from now.

CHAIRMAN O'CONNELL: So, basically, it would be the same as it is in Amendment 6 right now. Dennis.

MR. DENNIS ABBOTT: I'm getting confused. I see this motion being changed and still being seconded by Mr. Augustine and Mr. Lustig. I'm not sure where we're going, but we should have a substitute motion that was offered by Mr. Diodati and have a second to that.

CHAIRMAN O'CONNELL: Yes, we're cleaning that up right now. We're in the process of cleaning it up and we will try to clarify where we are at here in a second. Dave.

MR. SIMPSON: While we're working on that, I'm trying to get a sense of how big the reduction this might represent. We heard from Gary that for Massachusetts this would be about 38 percent reduction in the recreational fishery harvest. I guess you're more familiar – would that be on the high end, do you think, of other states; you know, really good fishing off of Massachusetts, so that would be the high end probably?

DR. NELSON: Probably the high end, yes. It would more likely be lower – if we do the bag limit analysis for each state, it would probably be lower.

CHAIRMAN O'CONNELL: All right, Paul, what do you think of the language there; good? **Move to substitute to develop an addendum**

**to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points for the Chesapeake Bay and Albemarle/Roanoke stocks, and to implement a 28-inch minimum size and one fish daily limit for coastal recreational fisheries with an equivalent reduction for coastal commercial quotas for implementation in 2014.** Made by Mr. Diodati; second by Ritchie White. Discussion on the motion? Tom.

MR. FOTE: I'm just trying to figure out what equivalency means. We're talking about this being a 35 percent reduction or a 38 percent reduction in the recreational catch. Does that mean that it is also corresponding to a 38 percent reduction in the commercial catch? If we're doing equivalency, that is what I would assume that means. I just want to get that clarified. We might as well put that up that it will be the same percentage reduction that we do in the recreational. Otherwise, people will not look at this as being equal and equivalent.

CHAIRMAN O'CONNELL: All right, Pat, do you want to speak for or against the motion. I'm going to practice our parliamentary training procedures here.

MR. AUGUSTINE: I'm against it, sir. If you would like to have me talk now, I will. Okay, the problem I have with this is do we know biologically – or not biologically, but do we know through our statistical folks there that 28 inches is going to do the job? Now, the reason I wanted it separated is because I was going to ask as a part of the options that the technical committee come forward with what percentage of reduction would that mean.

Should we go to a 28 inch: what would be the effect on our stocks? What if 28 isn't the right number? What if we should go to 27 or 26? If this is a moving management plan and a live management plan, we may want to go back and do that for two years or three years; to get two or three years of good production.

I see Alexei nodding his head yes; so to lock in now in one motion, where you have a complex motion that some folks are in favor of the top part, let's get that out of the way and then go to the second part. I would move to divide the question, Mr. Chairman. I can do that by Roberts' Rules, can't I, Mr. Abbott? Thank you, sir, and maybe you'll second it for me.

**I would move to divide the question right where we were before, "biological reference points to the Chesapeake Bay and Albemarle-Roanoke stocks", period. That would be Motion 1. The second motion would then be to start with the next line, "implement a 28-inch minimum size and one fish daily limit" –**

CHAIRMAN O'CONNELL: Pat, I may need a little help here from staff, but I think we need to determine whether or not the substitute motion will replace the main motion before we divide it.

MR. AUGUSTINE: Darn; I thought I could get away with it.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Unfortunately, you can divide a substitute motion. (Laughter)

MR. AUGUSTINE: Thank you, Mr. Beal.

EXECUTIVE DIRECTOR BEAL: The first vote is whether the board does or does not want to divide the question, and then you will have subsequent votes on the reference points be included in an addendum, and then your next vote will be on the management being included in an addendum.

CHAIRMAN O'CONNELL: All right, Pat, do you want to make the motion or do you want to let the discussion continue on the substitute?

**MR. AUGUSTINE: I want to make that motion to divide. I want to divide it as I said – divide the question, "move to substitute to develop an addendum to adopt" I'm trying to read it there – "for the coastal as well as – yes, so divide it at the point where we say "Roanoke stock", period; and then stop there; drop off the word "and to " or "or to**

**implement” – no, take out “and to”; and then it starts off “implement a 28-inch” – that would be the second motion.** Then we could deal with them separately. I will probably want to substitute that, too, but that is another story.

CHAIRMAN O’CONNELL: Do we have a second to the motion? Roy seconded the motion. I guess where we’re at is a motion to divide the substitute motion. The motion will be to divide the question to address the biological reference points and the management measures in separate motions. Motion made by Pat Augustine; seconded by Roy Miller.

Discussion on that motion? All right, let’s vote on the motion. All those in favor please raise your right hand; all those opposed please raise your right hand; any abstentions; null votes, 1 null vote. **The motion passes.** Staff is working to divide those two so we can take those on one at a time; so just bear with us for a second. Dennis.

MR. ABBOTT: Mr. Chairman, we’ve been going along here and we were going quite well. I was viewing where we were headed is with this whole management issue that we viewed striped bass management and we have been heading down a highway and we had suddenly gone to the right-hand lane and we veered into the breakdown lane; and we’re making a decision of whether we want to go in the gutter or not.

I think that taking some action essentially and hopefully will put us back on the right track; but what seems to have happened in the last 15 minutes is we got back on the road and we’re now on a Ferrari going a hundred miles an hour. I think it all went a little faster than what we would have liked. The first motion that was made is divided now; so we’re going to deal with the two divided motions. I think that it would have been easier to vote on the first motion that was offered and to have a decision on that, because it is way too early, in my opinion, to decide, in deference to Paul Diodati and others, at this point we need a one-fish limit and a 28-inch size limit at this point in time.

Especially in the year 2014; to me it is nearly an impossibility to achieve that. I think the formation of an addendum is the right way to go, so my vote would be to vote down the second part of the divided question, adopt the first question, and then from there decide in which direction we want to go and leave it at that today and move ahead. At least those are my thoughts.

MS. TONI KERNS: The board will need to vote on both of the divided questions; and then whatever passes from those two votes will become the main motion.

CHAIRMAN O’CONNELL: So moved to substitute to develop an addendum to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points for the Chesapeake Bay and Albemarle/Roanoke stocks. Is there discussion on that motion? Russ, do you want to speak for or against it?

MR. RUSS ALLEN: For it. I’d just like to echo Dennis’ comments. I thought they were very well put. I’m definitely for this part of the motion. Thank you.

CHAIRMAN O’CONNELL: All right, anybody else want to comment on the motion? I’ll give you guys 30 seconds to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN O’CONNELL: **All right, all those in favor please raise your right hand; all those opposed like sign; any abstentions; any null votes. The motion carries 15 in support; zero opposition; zero abstentions; zero null votes.** Now we’re going to look at the second part of the divided question. **This is to implement a 28-inch minimum size and one fish daily limit for coastal recreational fisheries with an equivalent reduction for coastal commercial quotas for implementation in 2014.** Paul.

MR. DIODATI: I just want to clarify that in this motion the equivalent reduction was meant to reflect the percentage decrease that is achieved

by going from two fish to one in our coastal fisheries. We've heard that there are estimates from 35 to 38 percent; but what I envision is that the technical committee would take a broad range of what their estimates are along the coast and take an average, and it is going to be somewhere between it sounds like 30 and 40 percent.

That was the intent and I think that is captured well enough on the record. As for a 28-inch fish as a minimum size and a creel limit, that is a well-founded principle that we've been living by in this fishery for about 18 years. We know that works. That is not a new discovery or something that we haven't been dealing with.

It doesn't mean that a state cannot do something different. You always have the opportunity to come in with a conservation equivalency. I know that for some of us this might seem like a Ferrari-like action to take an action in 2014, but I'm a little bit disappointed that ASMFC, through this board, has not been able to move and it won't move – it is going to be about five years I expect before this board takes any action to make a correction in management for the most important fisheries' resource that we have before us.

That is an embarrassment and I really would encourage the board to think about that. It is not the messages that we all received in our e-mails. It is the information that is in front of me. The information that I see in our fisheries when I'm out there on the water, it is clear what is going on. There is no mystery.

We have more information about this resource and this fishery than any other fishery. If you've been sitting at this table a while and haven't recognized these signals, maybe you shouldn't be sitting here. I don't know; I'm kind of wondering if you can't see these signals, what can you see? I'm in support of this.

CHAIRMAN O'CONNELL: Thanks, Paul, and thanks for the clarification. Dave, do you want to speak for or against?

MR. SIMPSON: It is not so much for or against but thinking ahead to addenda and how we handle it, I would see this as it sets the bound for a range of alternatives. There is status quo and there is one fish. I would like to see something intermediate between the two. I don't know how to characterize that right now because I don't know what one fish does in terms of percent reduction in F.

I'm in favor of this provided we have the latitude for some intermediate level that might look like something like two fish over 28 but only one over 40; that sort of blend. As my colleague said, you can't have 1-1/2 fish, Dave, but something in between like that just needs to be included in the addendum.

CHAIRMAN O'CONNELL: Russ, do you want to speak for or against?

MR. ALLEN: Against. The reason I'm against this is I'd really like to hear the technical committee's input and options that they could set forth to move forward with this fishery. Just all of a sudden saying we're going to drop to a one-fish daily limit is drastic; and I don't see that as the solve all problems.

I think the board needs to hear a bunch of options that the technical committee puts together, and I think that's the process. In deference to Paul, I'm not looking at five years down the road. I'm only looking at 14 months to have an implementation date by January 1, 2015. I think I can wait that long.

Considering how long it takes New Jersey to get the process done, anyway, we're not going to have anything done until probably mid-summer, anyway, so then it's only a six-month wait from then. I'm definitely against this, and I hope to see this shot down. Thank you.

CHAIRMAN O'CONNELL: All right, I've got four more speakers. I have a reputation of ending meetings on time and it is in jeopardy today, so let's try to make the point specific so we can get to a vote here soon. Ritchie, for or against.

MR. WHITE: For. Paul really said it all; we've been dealing with this for a number of years. It is always kick the can down the road. We had the information and let's wait until the benchmark stock assessment. Okay, we have the benchmark stock assessment and it's telling us we need to take action and that we have been overfishing under the new terms of reference.

When you talk about a lot of other options, my guess is that if this fails, which it looks like, that the options are very limited because other than going to one fish your other options are going to be a season or increasing sizes. It seems clear to me that this is where we will end up even though it looks like it is going to take us longer. It looks like New Hampshire will not be voting as I would like it to vote, and I just want to make sure the constituents know where to send the e-mails. Thank you. (Laughter)

MR. GROUT: I have a motion to amend.

MR. ABBOTT: No, you can't; this is a substitute motion.

EXECUTIVE DIRECTOR BEAL: We're dividing the substitute motion.

MR. ABBOTT: We've already had a main motion and a second. We've got to do either this or that.

MR. GROUT: My motion to amend is to add at the end "and to include in the management action an equivalent reduction in the Chesapeake Bay quota that will be implemented in 2015".

CHAIRMAN O'CONNELL: I'm just trying to get clarification if we can allow the amendment to a divided question. We have a divided question to the main motion; can we amend it at this point in time?

EXECUTIVE DIRECTOR BEAL: Technically I don't think you can. I think it's cleaner to decide up or down on the second half of your divided question; and then if there are changes that need to be made after that, it is probably better to do it once you have kind of cleaned the

table up a little bit. It is getting pretty messy right now.

CHAIRMAN O'CONNELL: All right, I'm going to rule it out of order right now.

MR. GROUT: That's fine; could I speak to this motion? Now that we're getting rid of the amendment, as I stated I certainly appreciate the board or Mr. Diodati and my fellow commissioners here a decision to make – wanting to make things happen quickly here, and I appreciate that.

I also appreciate the intent here by Mr. Diodati to make things simple; but I do very strongly believe that we need to move forward in the same action and do this in a holistic manner. Because at this point it is not included in there, I will encourage my other commissioner to vote against it with me; but at some point in the future, if this does pass, I would like to include some action in the Chesapeake Bay in the same addendum.

CHAIRMAN O'CONNELL: Paul, do you want to respond to this?

MR. DIODATI: Since that's still my motion I think, even though it has been split, I would be willing to accept Mr. Grout's amendment as a friendly one and not require it for – I can't do that?

CHAIRMAN O'CONNELL: I think we should try to deal with this divided question and get back to the main motion; and if people want to amend, we can do that. It is getting a little messy. Tom Fote, do you want to speak for or against?

MR. FOTE: Against.

CHAIRMAN O'CONNELL: All right, hold on. Michelle, for or against?

DR. DUVAL: I'm in the Dave Simpson camp; I'm in the neutral and I just wanted to echo his comments. I think I would just like to see a greater range of alternatives. Understanding what Ritchie has said that there is probably not a

whole lot of other places to go, but I think it would be important for the public to at least see what some of those other options are. Obviously, a reduction in season length is not going to be popular; but I think just for the public to see what those other options are. Thank you.

CHAIRMAN O'CONNELL: Mitch, are you for or against?

MR. MITCHELL FEIGENBAUM: I'm also in a little of both camps. My comments would echo David's and Michelle's that I do think there should be – that the PDT should have the ability to put any appropriate recommendations into the addendum as it sees fit. I have a particular question or concern.

Of course, I'm a little bit newer on this species so someone might clear up what I'm missing, but as I understand the stock assessment it is the spawning stock biomass coming too close to the threshold that's driving our concerns. If the technical folks tell us that the commercial harvest is not targeting the bigger fish, the spawning stock biomass, in the same proportion as the recreational fishery, would it really be appropriate, necessary or fair to insist on an equivalent reduction if in fact that portion of the fishery is not imposing as much impact? Perhaps I'm missing something, but it is a concern that – it just seems like it would be unfair to say the commercial reduction has to be the equivalent just as a matter of public relations. Is that going to serve a scientific purpose would be my question?

MR. FOTE: To answer Mitch, the commercial fishery on the coast is the same size. It has to be 28 inches or larger so you're targeting the same type of fish. In some states it is a hook-and-line fishery and it is a big-fish fishery. What I'm looking at – and I understand Paul is trying to prove his points and trying to move things, but to say some of the things I find a little annoying or I think presumes a lot of us.

This is a stock that is not being overfished and overfishing is not taking place. I look at the federal plans and when we look at scup and we

look at black sea bass and we look at – and we have stocks that are not being overfished and overfishing is not taking place; and yet we're going to do reductions as we go along through this process on them. As we looked at scup and what happened at the Mid-Atlantic Council Meeting, this is a stock that is producing.

We made an estimate of what we wanted to have the spawning stock biomass. This is a stock that is not collapsing; the stock is not going to be any different. Some of us have been around this table 30 years ago because we cared about striped bass. It was one of the driving forces that got us involved.

We're not going to do anything that is going to hurt the stock. What we are looking at is what is the necessary knee-jerk reactions that we have taken over the years just to come back two years later and redo it. I can remember being forced to put a slot fish limit in New Jersey because basically the board forced us to do it.

I do it by legislation and two years later telling my legislature, making them have a special meeting, to change that because then the commission says, well, it wasn't necessary for you to do a slot limit and we want you back at two at 28 inches. Now, those are the knee-jerk reactions that have consequences in the way people respect us and people look at us.

Again, that is what I'm looking at; because I know two or three years down the road when we do another retrospective analysis these figures are going to be different than what they are now, and that is where I'm concerned. That is why I'm saying I don't want this Ferrari. I want to take it slow and easy if we're going to do a major change in a species that we've been fishing the same for 20 years without overfishing and without being overfished.

CHAIRMAN O'CONNELL: I have three people on the list, Dennis, Rob and Rob. Please, if something has already been stated, it doesn't need to be stated again and just try to keep your comment on a new concern or comment. Rob.

MR. O'REILLY: I just wanted to talk about 2015, and to me that's the way to go about this. The complaint in 2011 from the PDT was that the board had not given the PDT really a very good direction. No one again seemed to understand what the reductions in F – how they could be configured, how that could be done.

There was some talk of maybe looking at changes in maximum spawning potential. I think all of that imploded the whole event. I think that was certainly part of it. Now this divided motion part here is simplistic, but we still haven't heard what the impact is. I heard Dave Simpson ask a couple of times what does the technical committee think is the reduction that is required.

It seems like we need to know that information; what is required, what will help out here; and, secondly, what are the mechanisms that can be accomplished. How is the technical committee going to recommend that we go about this? I don't see that right now.

MR. ABBOTT: Tom, I hope that you conclude this meeting at 12:15 as I'm beginning a meeting at 12:15 with lunch included for the LGAs.

CHAIRMAN O'CONNELL: Help me out here, then.

MR. ABBOTT: I will. But, seriously, in my choice of using the Ferrari was obviously pointed at Mr. Diodati, a good Italian car (laughter). And, again, I agreed with most things that Paul Diodati said because I agree with him; and if you asked me as an individual what I wanted, I would probably go along with this.

But I think that we're in a political arena here in that we're trying to make sausage, and that is what politics is all about and it is about what is achievable at this time. I don't feel that achieving a result by 2014 is possible.

What I think we need to do is either vote this up or down and then offer a reasonable new motion which to me would be something along the lines of implementing an addendum to achieve what it

is that the technical committee has shown us where we should go.

I can't come up with the exact words, but we really need to set the groundwork to have an addendum and give ourselves the opportunity to work through that and have it implemented by the year 2015. I thank you for your indulgence.

CHAIRMAN O'CONNELL: We got one last speaker and then we're going to call the question.

MR. MILLER: Mr. Chair, I need a clarification before I can vote on this particular motion; and that is specifically with regard if I could request of the maker of the motion did he intend, as Amendment 6 does, to lump Delaware River and Delaware Bay into coastal fisheries; or, my memory goes back to prior to Amendment 6 when Delaware River and Delaware Bay were part of the producer area; so which is it for the purposes of this motion? Thank you.

MR. DIODATI: I wouldn't use this motion to change the way we've been managing the fishery since we've implemented the current amendment. However your fishery and your geographic area are defined in the current amendment, it would remain under that definition. I would pose to change that. That's a different game.

CHAIRMAN O'CONNELL: I see your hand in the audience. We're still trying to get back to a main motion; so I'm not going to call upon you right now and probably not going to be call on the public, recognizing that if the board moves forward, this is just initiating an addendum. It is going to come back in February, which there will be other opportunities for the public to comment.

I apologize for that, but it is based upon the time constraints that are upon us today. I would encourage you to follow up with board members after the meeting if you have a concern that has not been raised. We're going to call the question here; 30 seconds to caucus.

(Whereupon, a caucus was held.)

CHAIRMAN O'CONNELL: All right, let's take the vote here. Depending on how this vote turns out, we're going to go back and vote on the main motion of the divided question. **All those in favor please raise your right hand; all those opposed please raise your right hand; abstentions; null votes. The motion fails two to twelve, zero, zero.**

Now we're going to go to the main motion, which was the first part of this divided question. The main motion is to develop an addendum to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points for the Chesapeake Bay and Albemarle/Roanoke stocks. Is there discussion on the motion? Michelle.

DR. DUVAL: Just a clarification; it is not two separate stocks for the Albemarle and Roanoke. It is one stock so it should read Albemarle/Roanoke.

CHAIRMAN O'CONNELL: We can make that clarification without any objection. Bob.

MR. BALLOU: Mr. Chairman, I'm certainly supportive of this motion. I would also be supportive of either an additional motion or a substitute motion that would add to this language, language along the following the following lines, "combined with a range of management options to address fishing mortality reductions for implementation in 2015".

I don't know about parliamentary procedures in terms of whether we want to deal with this first and that issue second or whether a substitute motion would be in order at this time, but those are my sentiments. Thank you.

CHAIRMAN O'CONNELL: Well, it is the board's preference but I think it would be more efficient if we could deal with this motion and then discuss if there is additional action the board wants to consider. Okay, Bob? All right, Doug.

MR. GROUT: Just another potential clarification for the motion based on what Alexei's comments were about this, that maybe when it says "as well as F biological reference points" – "fishing mortality biological reference points", just to make it clear that we're not talking about SSB for Chesapeake Bay and Albemarle/Roanoke.

CHAIRMAN O'CONNELL: We can put that in parentheses, perhaps. Loren.

MR. LOREN W. LUSTIG: Although it is somewhat confusing with the tremendous amount of dialogue we've had, I believe this is indeed Pat Augustine's motion, which I seconded, and perhaps for the record you would like to include that information.

CHAIRMAN O'CONNELL: It doesn't matter at this point, I guess, but it is on the record. **The main motion is to develop an addendum to adopt the new biological reference points for the coastal fishery as determined by the 2013 benchmark assessment, as well as biological reference points (fishing mortality) for the Chesapeake Bay and Albemarle/Roanoke stock.** All right, 30 seconds to caucus.

I don't see anybody talking so let's call the question. All those in favor please raise your right hand; all those opposed please raise your right hand; any abstentions; null votes. **The motion carries fifteen, zero, zero, zero.** Go ahead, Pat.

MR. AUGUSTINE: Mr. Chairman, unless Mr. Grout would like to make the motion he talked about, **I move that the board initiate an addendum, directing the technical committee to develop a range of management measures to reduce fishing mortality to meet the recommended target reduction.**

I'm not sure if "target reduction" are the right words; but if you want to help me wordsmith that one, I would appreciate it. The essence is we want them to come forward with a range of options, whether it includes one at 28 or whether it is 24 or 26, but leave it up to the technical committee to give us a broad range. I could

qualify it by saying five options because we don't want more than 15 or 20, and we can talk about that later; but the essence is to develop that range. That's my motion, Mr. Chairman.

CHAIRMAN O'CONNELL: So the concept, as they're writing it, is to task the staff and the technical committee to begin developing options that will bring the fishery back to the fishing mortality target?

MR. AUGUSTINE: Yes, to be implemented in 2015, if you want to add that, so we now have closed the loop; January 1<sup>st</sup> of 2015.

CHAIRMAN O'CONNELL: And the date would be to be implemented in –

MR. AUGUSTINE: To be implemented by January 1, 2015, because that will close the loop as far as the public is concerned that we are taking specific action.

CHAIRMAN O'CONNELL: And, Pat, just one other question for clarity; it was your intention that the reduction would be to reduce the fishery to the target level to be achieved in 2015 or over a period of years?

MR. AUGUSTINE: The real concern is whether or not it's conceivable to spread it out over a group of years. My concern there is if we do – and I'd like to hear from the other members before I give the yes or no – we do not want to kick the can down the road. We want to make sure that we're going to be able to bring this back to that level we want it. I would say, no, in 2015 and then let the public come back and say it is not doable or the commissioners around the table say it's not doable.

CHAIRMAN O'CONNELL: **All right, we got a motion: move to initiate an addendum to develop a range of management measures that reduces fishing mortality to meet the fishing mortality target implemented in January 2015.** Made by Pat Augustine; second by Dennis Abbott. Ritchie.

MR. WHITE: I would ask the maker of the motion if he would “at least” – “reduce fishing

mortality to at least the target,” so there might be something in there that might be a little more conservative.

MR. AUGUSTINE: Please add that. Thank you.

MR. O'REILLY: I guess I would ask the technical representatives if that addresses some of the concerns of the past about reducing fishing mortality rates in areas with different size limit regimes and different affects that is it more that the measures to achieve the fishing mortality target; so it might be harvest rate, annual harvest rate; it might be the exploitation rate. Is that something that the technical committee is comfortable with?

CHAIRMAN O'CONNELL: They're shaking their head yes. Are there other comments on the motion?

MR. AUGUSTINE: Mr. Chairman, is that implicit in our request; is that implicit to the technical committee what Rob O'Reilly said?

CHAIRMAN O'CONNELL: I think so, yes. John.

MR. CLARK: My only comment was if you're talking about the target now, you're saying that we have to go at least to the target; so we have to go below the threshold down to the target and even below the target mortality; that is what we're shooting for in this addendum?

CHAIRMAN O'CONNELL: This motion is to get to at least the target. Bill Adler.

MR. WILLIAM A. ADLER: Mr. Chairman, is the intent here for two separate addendums to be delivered to us in February, which was the first one that passed; and the second is this one. Is that the intent here, so we're going to be looking at two different addendums to approve to go out to public hearing after the February meeting; is that what I'm understanding here?

CHAIRMAN O'CONNELL: Yes, I see it being two separate addendums. Whether or not we can get this addendum ready to go out to public

comment after the February meeting is a thing that is going to be pretty ambitious, but it would at least bring something back to the board to fine tune and maybe if not February, in May. Bob.

MR. BALLOU: Mr. Adler actually asked the question I was going to ask. I would prefer to have the two actions rolled together. I think it serves the public better to have just one addendum to focus on addressing both issues, but I understand your point and I think it is well taken. I think we can deal with that issue at the February meeting.

I would just lastly note that I think the addition of the words “at least” make me less supportive of this motion. I don’t think they’re necessary and I think it pushes us farther than where we need to go. Generally, I like the motion with the caveat that the addition of those words “at least” I think are unnecessary. Thank you.

MR. BORDEN: Mr. Chairman, I assume it is the intent here – this is just for the record – I assume that the intent is to implement this in all areas on January 1, 2015; is that correct?

CHAIRMAN O’CONNELL: That is yet to be determined, but I think that is the kind of focus that this will include coastal areas and producer areas, and the board will review the options that the technical committee provides. Paul.

MR. DIODATI: We talked about the existing management triggers in our current amendment, the five, and in several of them there is very similar language. I want to make sure that this language doesn’t contradict with that in the amendment unless we really want it to change. The original language, for instance, says the board must adjust the Striped Bass Management Program to reduce the fishing mortality rate to a level that is at or below the target within one year if the fishing mortality threshold is exceeded in any year. You want to I think be consistent with that amendment language. We have done that for six of the nine years if we accept the biological reference points.

CHAIRMAN O’CONNELL: Yes, I think we’re consistent. Doug.

MR. GROUT: Mr. Chairman, I do support this motion. I think it is holistic and a prudent way to go. I think it will make things cleaner. I do also continue to support Mr. Diodati’s concept that we make the options – that we limit the number of options that each sector has so that we don’t get wrapped up like we did before with having so many options that it was so confusing that we didn’t do anything. I want to make sure we have some very – I would like to encourage the board to direct the PDT to develop something with a very relatively small number of options for each sector, the recreational and commercial base and the Chesapeake Bay and Albemarle/Roanoke Sound management measures.

CHAIRMAN O’CONNELL: All right, let’s call the question. **The motion is move to initiate an addendum to develop a range of management measures that reduces fishing mortality to at least the fishing mortality target with implementation in January 2015.** Motion by Mr. Augustine; second by Mr. Abbott.

All those in favor please raise your hand; all those opposed; any abstentions; null votes. **The motion carries fourteen to one to zero to zero.**

## FMP REVIEW AND STATE COMPLIANCE

CHAIRMAN O’CONNELL: Given the time constraints before us today, we’re going to skip the FMP review. Is there any objection with doing that? If you have any questions, follow up with myself or staff.

## ADJOURNMENT

Is there any other business that the board wants to bring up? All right, before we adjourn I think we all owe gratitude to the folks that were involved with the stock assessment and the peer review, particularly Gary Nelson who has chaired the last two benchmark stock assessments. With that, staff has a little gift for Gary. (Applause) Meeting adjourned.

(Whereupon, the meeting was adjourned at 12:20 o’clock p.m., October 29, 2013.)