

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

**Crowne Plaza Hotel
Alexandria, Virginia
May 5, 2008**

Board Approved August 19, 2008

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1. **Approval of Agenda by consent** (Page 1).
2. **Approval of Proceedings of January 29, 2007** by Consent (Page 1).
3. **Move to accept both Technical Committee nominees as presented by staff** (Page 11) .
Motion made by Mr. Augustine, second by Mr. Lapointe. Motion carries (Page 11).
4. **Adjournment by consent** (Page 12).

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for G.Lapointe (AA)	Erling Berg, NJ (GA)
Doug Grout, NH (AA)	Frank Cozzo, PA, proxy for Rep. Schroder (LA)
G. Ritchie White, NH (GA)	Leroy Young, PA, proxy for D. Austen
Rep. Dennis Abbott, NH (LA)	Roy Miller, DE, proxy for P. Emory (AA)
Paul Diodati, MA (AA), Chair	Bernie Pankowski, DE, proxy for Sen. Venables (LA)
William Adler, MA (GA)	Tom O'Connell (AA)
Vito Calomo, MA, proxy for Rep. Verga (LA)	Bill Goldsborough, MD (GA)
Mark Gibson, RI (AA), Vice Chair	Russell Dize, MD, proxy for Sen. Colburn (LA)
Everett Petronio, Jr., RI (GA)	Bryan King, DC (AA)
Sen. V. Susan Sosenowski, RI (LA)	A.C. Carpenter, PRFC (AA)
Eric Smith, CT DEP (AA)	Jack Travelstead, VA, proxy for S. Bowman (AA)
Dr. Lance Stewart, CT (GA)	Kyle Schick, VA, proxy for C.Davenport (GA)
Sen. George Gunther, CT (LA)	Ernie Bowden, VA, proxy for Del. Lewis, Jr. (LA)
Jim Gilmore, NY (AA)	Michelle Duval, NC, proxy for L. Daniel (AA)
Pat Augustine, NY (GA)	Steve Meyers, NMFS
Brian Culhane, NY, proxy for Sen. Johnson (LA)	Wilson Laney, USFWS
Tom McCloy, NJ, proxy for D. Chanda (AA)	

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

Ex-Officio Members

Brandon Muffley, Technical Committee Chair	Kurt Blanchard, Law Enforcement Committee Chair
Kelly Place, Advisory Panel Chair	

Staff

Vince O'Shea	Nichola Meserve
Robert Beal	Chris Vonderweidt

Guests

Brian Hooker, NMFS	Chip Lynch, NOAA
James Craddock, F/V Capt Ralph	Alexei Sharov, MD DNR
Lloyd Ingerson, Jr. MDNR Police	Greg DiDomenico, GSSA
Kelly Mahoney, RI Senate Policy Office	B. Windley, RFA/MSSA
Jeffrey Pierce, Dresden, ME	Luke Lyn, Dist. Dept. of Environment, DC
Dave Simpson, CT DEP	

CALL TO ORDER

CHAIRMAN MARK GIBSON: I want to welcome everybody to the Striped Bass Management Board.

APPROVAL OF AGENDA

CHAIRMAN MARK GIBSON: The first item of business is the agenda. You have copies of that. Are there any requests from the board for changes or adjustments to the agenda? Is there any objection to approving the agenda as written? Seeing none, the agenda stands approved.

APPROVAL OF PROCEEDINGS

The next item is the proceedings from the February 4th, 2008, meeting, which, by the way, was chaired by Paul Diodati on my behalf. Are there any requests for adjustments or changes to the proceedings? Is there any objection to approving those proceedings? Seeing none, those stand approved.

PUBLIC COMMENT

The next agenda item is public comments. Does anyone from the public wish to address this board on items that are not on the agenda? Seeing none, there is no public comment. The next agenda item is the Advisory Panel Report, Kelly Place.

ADVISORY PANEL REPORT

MR. KELLY PLACE: I'm Kelly Place, the new advisory chair. Given this short meeting and the consequent time restraints, I'll be moving fairly quickly through this. This was our first meeting in quite some time and we had fairly good attendance. We met our objectives. We had lengthy discussions on the stock assessment and provided some management advice to the board.

We elected Bill Donovan as vice-chair, and I'm shocked to report that I was drafted as chair. After ten years, I figured I'd finished serving my time up here, but now that I've been sentenced to two more years, it will be an honor to do some hard time with you guys. On the first thing here, on the older fish, many of the AP were concerned about the inadequacy of some of the age-based data, especially on older fish.

We'd like to see this type of data collection given higher priority as recommended by the technical committee. We discussed the possibility of having three regional age-and-growth centers. These were proposals that were first considered for funding by

the ACCSP in 1998. We were wondering what had happened to that. We like the technical committee's regional approach, which apparently would reduce the number of large fish sacrificed for the program.

I just found out – and this is very encouraging – that the staff and the states have apparently initiated an inventory of otoliths and other hard tissue that has already been collected. That's for this year and the collection program that they'll configure will start next year, so that's very good. That's the type of information that I think a lot of the advisory panel would like to be privy to because there has been such an ongoing concern and even preoccupation over the age structure of the fish.

I think any guidance that they could get from the age-and-growth stuff you all have, preferably in a summary form, would be great. Otherwise, we'll parse the data ourselves, however you want to give it to us.

Discard mortality obviously was a big topic of concern, especially for the recreational fishery. We would like to see that decreased and we discussed ways to do that. We continued the ongoing conversation about circle hooks, their efficacy, voluntary measures and mandatory ones. A minority supported reviewing the possible mandatory measures, but a majority, some of whom felt quite strongly that the mandatory measures were inappropriate for a variety of reasons.

Nearly everyone agreed that if the mandatory measures were ever implemented, that it could not be a universal approach but only specific to certain fisheries, locations and environmental conditions. There wasn't a lot of support, really, for mandatory circle hook implementation, maybe in certain conditions.

On the biennial assessments, there was initial concern on the AP regarding the biennial assessments, but that was mostly satisfied by assurances that the board would be updated annually on the various stock assessment indices, harvest and other metrics. That pretty much assuaged that concern.

Wave 1 sampling; that whole issue was a big concern. It was expressed that the importance of the Wave 1 sampling was pretty much urgent due to the rapid growth of the winter recreational fisheries in coastal North Carolina, Virginia and Maryland. The AP recommends for the board to pass inclusion of Wave 1 sampling now, even before the completion of the MRFSS redesign.

I don't know whether that's going to put much of a burden on the MRFSS people, but we do think that inclusion of that Wave 1 sample, especially given the explosive growth in these ocean fisheries off of those three states, we think that's very important, especially considering implications for the F on the big fish.

Law enforcement; I'm happy to say that everyone on the AP supported increasing effective law enforcement. A serious concern was the extent of the illegal harvest in the states' ocean fisheries in the EEZ, as I just alluded to. The AP was impressed with the importance and the efficacy of joint enforcement agreements between the state and the feds.

It was just brought to my attention that there is not a joint federal/state agreement with the state of North Carolina right now, I don't believe. We would certainly encourage something like that to be implemented and initiated as soon as possible.

To the state regulations; in light of the favorable stock assessment, there was a good bit of apprehension on some of the AP members' opinions whether there should be an easing of regulations. A lot of people perceive that was sort of the guidance of the management board. Much of the AP's discussion on that was in the context of the perceived decline of the larger fish.

About half the AP wanted the technical committee analysis of what regulations the board could develop to reduce the F on larger fish. Maximum size limits, various slot limits and separate seasons with separate size limits were all considered. But on the other hand, about half supported the status quo and were pretty much against any measures that would eventually increase discard mortality or increased discards and the consequent mortality therefrom.

Several members spoke in favor of increasing the commercial coastal quotas. On to the issue of the EEZ, it seems like a lot of opinions have changed over the years. The AP was practically unanimous that the moratorium on possession of striped bass in the EEZ be maintained. There was some discussion of the implications of President Bush's executive order that prohibited the sale of striped bass from the EEZ.

It was noted that this was already illegal, anyway, and the lifting of the EEZ moratorium would be obviously recreational in nature the way things stand now. It was also noted that given the frequent concentration of large, old fish in the EEZ, that

subjecting them to increased fishing pressure would essentially be in contradiction of our management advice to the board, which is essentially to reduce the F on the older fish.

Consequently, the AP felt that lifting the moratorium would be counterproductive to the stakeholders, the management plan and effective law enforcement as well. My last slide is on commercial flexibility. Some of the members of the AP noted the growing disparity between the recreational and the commercial landings. About a third of the AP members that were present supported having the plan review team explore a mechanism to add flexibility to the commercial management regime.

This was proposed to create equity with the recreational fishery, which has grown with the increase in striped bass abundance. I guess some of the commercial members would like to see some sort of commensurate increase similar to what the recreational have had with the increasing abundance. Those who were opposed to this proposal – and there were several that were opposed – they didn't think that this was necessary because they thought that the existing addendum process was the appropriate place to change commercial changes.

I did notice that was one point that had been brought up, and it looks like it's going to be a topic of further discussion. That's the advisory panel report in brief. Now that you have been the recipients of my first presentation to you, I'm happy to take any questions. If you don't have any questions, I'll ask you one or two. That's about it.

CHAIRMAN GIBSON: Thanks, Kelly. Are there questions from the board on the advisory panel report? Paul Diodati.

MR. PAUL DIODATI: That was a good report, Kelly. On this last issue, is the panel recommending an increase in the commercial quota?

MR. PLACE: No, it wasn't a vote; and considering the minority status of the commercial sector on there, it did seem like it was unanimous within that sector. There were people that were favorably entertaining the idea of that, but I would have to say it was probably a two-thirds or better majority that probably tended to think that the addendum process was the more appropriate place. Most people didn't speak on it, but that was my feeling, so it's up to the board for consideration on the merits or drawbacks.

CHAIRMAN GIBSON: Any other questions from the board on the advisory panel report? Arnold Leo, do you have a question?

MR. ARNOLD LEO: Arnold Leo, consultant for commercial fisheries, town of East Hampton. I'm afraid it's not a question but a comment that has to do with – first of all, the makeup of the advisory panel has been skewed almost from the beginning. When you get a one-third vote of commercial fishermen voting in favor of something and a two-thirds vote of recreational fishermen voting against, that's pretty much the makeup of the panel; one-third commercial and two-thirds recreational.

These votes don't mean all that much, really. I do want to point out that in terms of allowing flexibility and giving the commercial fisheries an annual TAL to keep it in equity with the way the recreational fishery works – looking in Gary Nelson's report to us, you know, it was pointed out that in 2005 the recreational fishery landed 3.8 million fish. The next year, 2006, it landed 4.8 million fish, an increase of one million fish in count in one year. Now that's flexibility.

Meanwhile the commercial fishery is capped at a fixed level year after year; and when the recreational members of the AP say, "Oh, well, you can address that in the addendum process, haw, haw, haw." I mean, that means about once every ten years we get a chance to gain a little flexibility in the commercial quotas. Something has got to be done in this next addendum or amendment to make equity on this question.

Clearly, when landings can increase in one year by one million fish, we've got a big population out there and the stock assessment backs that up. I mean, this is a healthy population and the commercial fisheries are not getting an equitable share of it. Thanks.

CHAIRMAN GIBSON: Thank you, Arnold. Nichola, there were a number of recommendations in the advisory panel report. Should we address those now or take those up under Item 6?

MS. NICHOLA MESERVE: If the board would like, I think some of the issues from the advisory panel could be added to the list of issues that the board would want to address for a potential management addendum.

CHAIRMAN GIBSON: Is that all right with board, we'll take up the advisory panel report recommendations under Item 6? Okay, anything else

on the advisory panel report? Seeing none, we'll move on to the next agenda item, the technical committee report on updated biological reference points. Brandon.

TECHNICAL COMMITTEE REPORT

MR. BRANDON MUFFLEY: Thanks, Mr. Chairman. I'm going to kind of cover a number of different topics here. One is how the reference points were originally developed during the Amendment 6 process and what the technical committee has done to update those reference points.

At this point it essentially states that the technical committee feels that we are not finished with updating that and then provide a list of recommendations that we feel we need to address. I'm going to cover a bunch of things first. Mr. Grout covered these at the last board meeting, but I'll go over it for everybody's refreshment. Why we are sort of here, during the peer review – in 2007 the peer review recommended that we update the – we had them look at the methodology of how we calculated our reference points, and they recommended that we update the reference points using the latest stock assessment model.

They were last calculated using the ADAPT model, so they recommended using the statistical catch-at-age model. They also keyed us in on looking at some of the various assumptions that go into calculating those reference points. I just threw a few of them up there, such as the assumption of the one-to-one sex ratio, aging issues, and they listed a few others.

Then at that board meeting the board charged the technical committee with updating those biological reference points using the new model. As kind of history of how these reference points were developed, again, they were developed during the Amendment 6 process. They were used with data from 1982 to 2000, using the ADAPT VPA, which was our former model that we used to assess the stock.

That information is first used in the stock recruit model. It's called the Shepherd Stock Recruit Model. Then from there that information is then plugged into the Thompson-Bell Year-Per-Recruit Model, where we get our maximum sustainable yield estimates. From there we develop our FMSY estimates and our various biological reference points out of those two models.

What goes into the Shepherd Stock Recruit Model, there are two key things. One is spawning stock biomass and the other is age one abundance or recruitment. To develop spawning stock biomass, we use the male and female maturity ogives. We used them separately at this point. We have a 50/50 sex ratio that's split between the abundance, and then we have a weight at age, an average weight at age that's applied to that.

I'll kind of go into the details of how all of those things fit together in a second. Again, previously during Amendment 6 it was information out of the ADAPT model from 1982 to 2000. Recently we have used the statistical catch-at-age model with information from '82 to 2006. I just want to kind of give a comparison between the data that we used in updating it and what data was used during the Amendment 6 process.

Some of the information that stayed the same was the maturity schedules. We used the exact same maturity schedules for males and females as was done during the Amendment 6 process. We again used the assumption of a 50/50 sex ratio, and we used the same weight at age for fish greater than 13 – from 13 to 25 we used the same weight at age.

New information that we used was population abundance that came out of the statistical catch-at-age model, new recruitment information that came out of that model, and new weight-at-age information for fish ages one through twelve. What we take first is the population at age from ages two-plus, and this is the difference between what the ADAPT model showed during the Amendment 6 process and what the statistical catch-at-age model shows.

You can see that the catch-at-age model, the new model, shows high abundance. They showed similar trajectories but a greater abundance under the new catch-at-age model. We take that abundance, apply 50 percent to males and 50 percent to females, multiply that by its sex-specific maturity ogive, multiply that by its weight at age. This is the differences between weight at age during the 2007 model and the Amendment 6 model.

You can see that weight at age for ages one through twelve are higher than they were previously calculated. I didn't show 13 and beyond because it's the exact same between the two models. Then we sum those two together and we get total spawning stock biomass, and this is the difference between the ADAPT model and the statistical catch-at-age model. You can see, again, that it shows – the catch-at-age

model shows a much higher total spawning stock biomass than the ADAPT model.

The last piece of information that you need for the stock recruit model is age one abundance or recruits. They show similar trajectories between the two, but, again, varying degrees. It shows a much higher age one abundance for the new catch-at-age model. Now we have the new spawning stock biomass and we have the new age one abundance. I have here the two different stock recruit plots.

The one on the left is the stock recruit plot that was developed in the Amendment 6 process, and our new stock recruit plot that is calculated during this update. I want you to notice in particular during our new model, the model on the right shows a much flatter stock recruit curve. The old Amendment 6 curve shows a little bit of domeness to it. Now the stock recruit curve is much flatter, and that's pretty much driven by the 2003 year class.

We had the spawning biomass was extremely high, and our 2003 year class was the highest on record so it shows that we can get large recruit events during large spawning stock biomass. The key difference between those two curves are the 2001 and 2003 year classes. Mr. Chairman, do you want me to take questions now or move along?

CHAIRMAN GIBSON: Where are you going to after this?

MR. MUFFLEY: I'm going to go into model inputs for the yield-per-recruit model.

CHAIRMAN GIBSON: What is the board's pleasure; do you want to ask questions now to this point? Okay, Paul.

MR. DIODATI: I'm curious, Brandon, how sensitive is the model to the weight at age?

MR. MUFFLEY: Well, that's a good point.

MR. DIODATI: Because it seems like, you know, growth and weight is increasing up to age 13. At 13 you said you hold it static or –

MR. MUFFLEY: It's not static. The weight continues to increase, but we used the same information from the last model that we did for this one, so we don't have a whole lot of age and weight information for fish older than 13. That weight-at-age information is more on mathematics and not really true – it's based on growth and not –

MR. DIODATI: Okay, I misunderstood. I thought you were holding it flat after –

MR. MUFFLEY: It's not constant; it's not held constant.

CHAIRMAN GIBSON: Anyone else have questions at this point? Vince.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: This is going to come up later in the week, so you're saying that the increased weight at age is a function of the calculations and it's not based on observations?

MR. MUFFLEY: Not for fish 13 to 25; that's based on modeling essentially.

CHAIRMAN GIBSON: I guess that's it for this segment. Go ahead.

MR. MUFFLEY: That's what it looks like for the stock recruit information. That information is then put into the yield-per-recruit model. Just to kind of give you background in terms of what we require for the yield-per-recruit model, and I'm, again, going to draw the differences between what was done the Amendment 6 development and this update.

We need natural mortality, and it's assumed to be 0.15 across all ages. That was done during Amendment 6 and we have done that here. We assume the maximum age is 25. That's sort of a compromise between males and females. Here we use the maturity ogive that is combined during the stock recruit process. We have a separate maturity ogive for males and females and now it's a combined maturity ogive. That's the same between the two updates.

Again, the weight at age, we already sort of covered this. We used a new weight at age for ages one through twelve, and we used the same weight at age for ages 13 to 25. The selectivity pattern or partial recruitment vector, we recalculated that using the new model. That's the difference I'm going to show now. I'm just kind of covering what I just did. We used a constant M again, a combined maturity ogive and the weight at age.

Those are the same things that we used between the two updates. The new information is the partial recruitment vector and the weight at age. The weight at age I already showed, so I'm going to go into the partial recruitment vector to show how that looks.

Essentially the 2007 statistical catch-at-age information shows that younger ages were recruited a little bit more so than they were during the 2001 ADAPT run, but they weren't fully recruited until later.

At you can see on the bottom there, fully recruited ages were at age nine, and now we're calculating it that age eleven is the fully recruited age. That's all of the new information. We plugged that in and ran the models, but the technical committee didn't feel that – we have a lot things that we need to look at to really provide a concrete answer in terms of what the new reference points are or should be.

I'm going to give you a list of tasks that we think the stock assessment subcommittee needs to evaluate before we provide updated biological reference points. One is in terms of calculating the spawning stock biomass we need to review the 50/50 sex ratio – that was brought out at the peer review – and this combined maturity ogive that we apply. We need to review the 25 age classes. Again, that's kind of a compromise between the two. Females tend to live out to about 30 where males, on average, only live to 15 to 20 years old, so we need to evaluate that.

The assumption of constant M, constant M across all ages and constant M across all years; we need to see how that influences the model. We need to review the uncertainty within the statistical catch-at-age model. The new catch-at-age model does provide error estimates on all of our point estimates, so we can review that uncertainty. We can also review the uncertainty because the catch-at-age model has a retrospective bias associated with it.

We need to evaluate those two errors and see how that affects the modeling. We also need to review the uncertainty within all of the terminal year estimates that we have. We have the statistical catch at age, we have tagging models. We did a number of other catch-at-age models during our assessment process, so we have three or four or five different terminal year estimates that we need to evaluate where those reference points lie within all of these terminal year estimates that we have.

We're also going to review the appropriateness of the current biological reference point system that we have. Again, I'll say that stock recruit curve that I showed is pretty significant. The difference between a slight dome-shaped stock recruitment curve versus a flattop curve will alter the reference points quite substantially. It was due in part to the 2001 and specifically the 2003 year class, so we need to

evaluate how reliable those biological reference points are with just one or two years worth of new data. Are there other reference points we should consider?

Then, also, any other modeling approaches; should we continue on with the Shepherd Stock Recruit Curve and the yield-per-recruit estimates or should we evaluate some other modeling approaches? That's essentially what I have.

CHAIRMAN GIBSON: Thank you, Brandon. Questions? Paul Diodati and then Roy.

MR. DIODATI: Has the minimum age of entrance to the fishery – the minimum size of entrance the fishery dropped in the regulations since the last time this was done?

MR. MUFFLEY: It hasn't dropped. I think during Amendment 6, that's when the two fish at 28 inches was implemented. That's why we think that the fully recruited ages has actually moved up from nine to eleven because of that coast-wide regulation. Twenty-eight inch fish, you know, there is a pretty wide range of what ages that 28-inch fish is, but that's what we feel that selectivity is. It's just up because of the two fish at 28 inches.

MR. DIODATI: I understand that part of it. It's the younger age of recruitment that I'm not grasping. Why would that occur?

MR. MUFFLEY: It's upticked a little bit. I think that's more probably reflective of discards more than anything, that's there is going to be a higher F. Well, that would affect the PR but the overall change is pretty slight. I mean, it looks a little bit more drastic, but you're talking about on those smaller ages an increase in the PR of only like 3 percent. It went from, say, 5 percent to 8 percent selectivity on some of those ages, so it's not anything really substantial.

MR. ROY MILLER: Thank you, Mr. Chairman. Brandon, among the technical committee members, is there any strong feeling that maybe natural mortality has changed from 0.15, the assumption of natural mortality? I mean, we hear an awful lot about the effects of mycobacterium, lower rates of condition factors in the Chesapeake population, and any number of other reasons to consider perhaps examining the natural mortality assumption. How does the technical committee feel about that?

MR. MUFFLEY: I would think that the technical committee in general believes that there was a change

in natural mortality, particularly on younger ages; most likely those resident males within the Chesapeake Bay. I think that the technical committee definitely wants to evaluate how natural mortality has changed. We've looked at it in various components during our peer review process.

During the stock assessment we had looked at varying natural mortality rates during certain reference periods. Certainly, the tag-based model shows that there is probably a change in natural mortality or an increase in natural mortality for some age classes. I think the technical committee in general is in agreement that natural mortality has changed.

MR. MILLER: If I could, Mr. Chairman, since Brandon mentioned the tag-based estimates, what is the resolution of the tag-based estimate theories versus the path that we're currently going down? In other words, they have been parallel estimates for years and years and years. Is the technical committee and the stock assessment committee any closer to either marrying those two or adopting one over the other?

MR. MUFFLEY: The goal, I think, of the stock assessment subcommittee is to marry those two. We took to the peer review this SCA Tag Model that incorporates the catch-at-age information and the tag models, and that's essentially where we want to go. The peer review panel felt that was the way we should go. Ideally, we want to pull all that information together and put it in one model so that we're getting all of the information that we have from the stock and put it in one model to give us a better reflection of what the population is doing.

MR. DOUGLAS GROUT: Thank you, Mr. Chairman, and thank you, Brandon. I'm very glad to see that one of the things you're going to be looking at is what is the effect of that 2003 year class on the stock recruitment curve? One of the concerns, even when I was on the technical committee, was that it is a single point in which we only had three years of information that provided that estimate, and at subsequent years sometimes gives – if you add subsequent data to it, it modifies that total abundance estimate for that.

I'll be interested to see what would happen if there was a variation in that 2003 estimate. Granted, it is something that shows that, yes, even at large SSB sizes we still can have good recruitment. But, as you said, there is a very big implication if we go from a

dome-shape to a flattop stock recruitment curve in our reference points.

MR. PATRICK AUGUSTINE: Thank you, Mr. Chairman. Excellent presentation, Brandon. Will the technical committee take a look at or have they taken a look at the effect of the 55 million pound biomass number that was anticipated that we have in the stock right now concerning the two following things.

We're looking at a target of 30 million pounds as our minimum, and then the higher number was something in excess of 38 million pounds that we wanted the stock to be at, and we're somewhere in the area of 55 million or so. Has the technical committee – and all the elements, I went through it and I couldn't see where you would even be looking at that and its implications or effect on the rate, for instance, year of the young and the mortality rate, the average mortality rate and that sort of thing.

So, is there not implication here that we have such a large abundance – overall abundance of striped bass now compared to where it were, that it would not or could have a negative effect upon year of the young and so on? You indicated now that the fully recruited has moved from about nine to eleven years. Is there a relationship here or is that too far out of the range of what you're doing?

MR. MUFFLEY: Well, hopefully, I can answer your question. I think the differences between our two stock recruit curves is during the Amendment 6 that stock recruit curve shows that if biomass gets too high, you're going to see a decline in recruitment, so there really isn't any point in having – once you get to a certain point having a spawning stock biomass that's beyond that because you're going to see a decline in recruitment.

Now that we have six more years of stock recruit information, it shows that we can still get really strong and the highest recruitment class ever with this high biomass. Now there isn't that compensatory relationship anymore based off of really that one data point essentially, so that is certainly the key in terms of how reliable are our reference points based off of the influence that one data point may have on that calculation. I mean, it falls right into the spawning stock biomass sort of conundrum here, I guess.

CHAIRMAN GIBSON: Just so I understand, the technical committee will be revisiting not only fishing mortality rates, targets, and thresholds, but the biomass targets and thresholds as well?

MR. MUFFLEY: Yes.

CHAIRMAN GIBSON: I think that's what Pat was asking.

MR. MUFFLEY: Yes, that's correct. I mean, what came out of the peer review, also to your point, was that we shouldn't have a static biomass reference point. Because we currently have what the biomass was calculated to be in 1995 based off of that ADAPT run, they're saying it should not be a static reference anymore. It should be what the new catch-at-age model shows what that 1995 spawning stock biomass was. We will be evaluating the SSB reference points as well, certainly.

MR. AUGUSTINE: Mr. Chairman, a follow on; so, is there a time when you actually reach a state of equilibrium in any population such as striped bass? I know it was mentioned several years ago by John Carmichael. Because the stock was in the great condition that it was, he wondered when we would be reaching that level of equilibrium. Is there such a thing and does it apply in the case of striped bass in view of the fact eventually we're going to go to ecosystem management? I think they're all linked together. Do you have an answer? I'm not trying to put you on the spot.

MR. MUFFLEY: Well, in theory, no, and we probably won't reach equilibrium. We assume equilibrium in some of our models because that's what we have to do. We try to get away from that assumption as best as possible and with new models we kind of do that, but in certain circumstances we need to kind of approach that route. With a changing M, for example, if M is systematically changing over time, you're not in an equilibrium condition during that time. There are lots of factors that will keep you out of equilibrium essentially.

CHAIRMAN GIBSON: Anyone else have questions? We have a recommendation from the technical committee that they postpone making their major report on updated BRPs until the August meeting. I don't sense we're going to be able to reject that considering we don't have the report in hand. I'm thinking we're okay with that and that's when we'll hear all these details.

I personally think we need to give them all the time we have. This is a very important issue. I agree with Brandon that the consequences of the new stock recruit data, whether it indicates over-compensation or just compensation, are going to be quite important in all of the fishery as well as biomass-based

reference points. Anything else on the technical committee report? That leads us right into the issues for possible management actions. Nichola.

POTENTIAL MANAGEMENT ACTION ISSUES REVIEW

MS. MESERVE: Thank you, Mr. Chairman. Following the last board meeting when the board was presented with the stock assessment, staff was tasked with collecting a list of potential management action issues, and I'll just present those pretty quickly.

First and foremost was to re-evaluate the biological reference points and striped bass stock status; to address the increasing number of recreational releases and dead discards; to evaluate and respond as necessary to the decrease in spawning stock biomass and increase in F in recent years; to consider relaxing the recreational and commercial restrictions to maximize fishing opportunities given the current F and SSB estimates; to consider making smaller fish available for harvest; to consider increasing the coastal commercial quotas; to consider an alternative minimum recreational size limit for the Delaware Estuary; and to consider recommending a reopening of the EEZ to the Secretary of Commerce. Thank you.

CHAIRMAN GIBSON: Okay, some board discussion is needed on those issues, I guess. Anyone want to start off? Paul.

MR. DIODATI: It would be nice if they were listed up there.

MS. MESERVE: There is a list in the briefing document, if that's easier.

MR. DIODATI: I guess I have a question. How many years has it been since we've liberalized either the recreational or commercial fisheries?

MS. MESERVE: In Amendment 6 the commercial quotas were liberalized to 100 percent of the baseline, and the recreational size limits changed as well.

MR. DIODATI: So that's five years? Thank you.

MR. ERIC SMITH: I had my oar in the water on at least one of these and actually a couple, but I have a suspicion now is not the time to talk about them until we get a better signal out of the reference point discussion. If you recall, I had e-mailed around and said we're fishing it below the F-target and the abundance is above B-target. I didn't even say it at

the time, but the fact is in New England – and, you know, conditions vary along the coast, but in New England the advice to consumers is don't eat the big fish because of PCBs and mercury, and it suggests that as managers we might tailor our whole different fishing strategy to consume the smaller ones and once in a while take a trophy, if that's what turns you in fishing.

But all of that I cast ultimately in do we have some opportunity that we're foregoing because of our desire not to go back to a condition of overfishing, which got us into the fix in the seventies and early eighties. Some of e-mails I got back were very interesting. They said, well, yes, it's true, we're on the good side of the F target and we're on the good side of the biomass target, but the trend lines seem to turning on us a little bit.

This whole discussion about potential revision of the reference points is still on us after the latest stock assessment, which in my view meant – which was I thought was a valid point – that we ought to, you know, stop and wait a see a little bit more. So, most of these things, other than the pure re-evaluate the reference points, I think we sort of would be wise to pause and let the discussion on the reference points play out before we went into an addendum or an amendment to try and change the strategy to fish either heavier or on a different size range of fish.

CHAIRMAN GIBSON: Yes, that's my sense, Eric. For example, if the update of the biological reference points concludes that we have an asymptotic-type SR curve and greater biomass is possible under lower fishing mortality rates because you still get big recruitments and so on, a lot of these things would drop right off the table pretty quickly as being possibilities. That's my view at this point, that we really need to see this re-evaluation and they need time to do it.

It could be a very important turning point if they conclude that large recruitments are still possible even at 80 and 100,000 tons of SSB. I think that could have major implications to our long-term biomass thresholds and targets. Any other comments or thoughts from the board? .

MR. DIODATI: I agree that I think it's prudent for us to wait and see what the technical committee comes back with and finishes their review of the biological reference points. As for making smaller fish available for harvest or dropping minimum sizes, a state can do that in any year on their own without any change to the amendment or addendum or

whatever. That's part of the adaptive process. Everyone is allowed to do that. If you want to fish at a smaller size, you may have to pay a penalty but you can do that.

CHAIRMAN GIBSON: I was just reminded that we had some advisory panel recommendations. What I highlighted in the advisory panel report was a recommendation for otolith collection in older fish and regional aging centers; advisory panel advice on continuing education on circle hooks, uses of circle hooks; and then there was an important one, I thought, on the Wave 1 sampling from the advisory panel. Did I miss anything, Kelly?

MR. PLACE: No, not really except for some of our concerns on the otolith and hard tissue aging parts for the larger fish I just found out today have apparently been somewhat satisfied with the initiation, I believe, of ASMFC with the states to do these – to start collecting all the otoliths that have been gathered over the years. I think that next year it's to be initiated into – I guess we'll start doing the age and growth and put out the significance of whatever their findings are.

MS. MESERVE: Well, staff is working this year with the states to inventory all the otoliths that are over 800 millimeters held by the states. Once we have an inventory of those, we'll be getting a cost estimate from Old Dominion University to age those otoliths. Then we're being told that up to next year to start collection in the four regions along the coast to collect more otoliths from larger fish. It's still dependent on funding at this point.

MR. PLACE: I would add to that, though, regardless of what happens with the funding, that the data that we do have specific to striped bass and the implications of that data are of ongoing concern to the advisory panel since they're so preoccupied and have been quite a while on the age structure of the fish, so any information staff or anyone else can shoot to us on the implications of the aging data is great.

CHAIRMAN GIBSON: Thank you, Kelly. The circle hook recommendation here looks to me like that's more of an outreach-type recommendation to the states, and so it is an action item for the commission. I'm not sensing anybody is going to be opposed to carrying on those kind of activities with your states' fishermen.

The one that I think is substantive in this request to initiate Wave 1 sampling throughout the region now

in the current MRFSS survey as opposed to waiting for the redesign, that strikes me as a pretty substantial recommendation on a coast-wide basis and one that there isn't funds left available for it at this time, so what does the board think about that? Pat Augustine.

MR. AUGUSTINE: Thank you, Mr. Chairman. Was that in relation more to the southern states that have a very active fishery in striped bass in the wintertime? I understand that North Carolina has a very active one, and maybe it would be possible to ask the state of North Carolina, in view of the fact they do their own MRFSS survey, whether they might want to expand their program. I think we could ask them, Mr. Chairman, or you might want to ask them.

CHAIRMAN GIBSON: I'm just looking recommendation; it says Wave 1 sampling in all states. I don't know if that's reasonable to do. You're talking about the three states above that in that request, Kelly?

MR. PLACE: There is an update on that. That was the original request from the AP. However, I believe North Carolina has initiated Wave 1 sampling. That's good; that's one of their prime concerns.

Secondarily, I would say the explosive fishery in the winter off of Virginia, which doesn't have Wave 1 sampling, so I think you could narrow the specificity of that request down to especially Virginia. If it's a costly thing, I think Maryland is probably a distant third in terms of concern, but it is a concern.

CHAIRMAN GIBSON: Jack, do you have any intent on sampling in the winter?

MR. JACK TRAVELSTEAD: We certainly do, but not until MRFSS is redesigned. That's been our desire all along, but given the lack of confidence that almost everyone sitting around this table has in the current MRFSS, I hate to be spending the kind of money it will take to do that now and would really rather wait until the new survey is out and then we will proceed. We just have too many other uses for that kind of money right now.

CHAIRMAN GIBSON: Thanks, Jack. Tom, do you want to Maryland's position on this?

MR. THOMAS O'CONNELL: I agree with Jack. Obviously, we're very concerned about that fishery off of the Chesapeake Bay in the wintertime, but limited resources right now – I guess one thing I was interested in is what is the timeframe for the redesign of the MRFSS survey?

CHAIRMAN GIBSON: That I don't know; anyone want to try to answer that? What I'm hearing is the key states are interested but they want to wait for this redesign to take place.

EXECUTIVE DIRECTOR O'SHEA: I'm not sure if the advisory panel had this information, but it's my understanding that the technical committee is making an estimate of what the Wave 1 harvests are in Virginia right now based on, I guess, extrapolating the North Carolina data. The AP was thinking that was a total void. That's not necessarily my understanding of what the technical committee is doing.

MR. MUFFLEY: Yes, that's right. We have the estimates from North Carolina and then we used some tagging return information from North Carolina and Virginia to make estimates for what is being removed out of Virginia during that time. It's in the assessment as well.

CHAIRMAN GIBSON: Thank you, Brandon. If I don't see anything else from the board, I'm going to assume that you're satisfied with the technical committee's current practice and wait for the redesign of the recreational survey before tackling this winter sampling. Yes, Bill.

MR. WILLIAM GOLDSBOROUGH: Is it anticipated that there will be a period of overlap to compare the two, the MRFSS and the new survey?

CHAIRMAN GIBSON: I don't know the answer to that.

MR. GOLDSBOROUGH: I was just going to say if there were to be a period of overlap it might be useful to have that Wave 1 baseline information for comparison.

CHAIRMAN GIBSON: Any board members want to rethink their positions based on that comment? Seeing none, I guess not. Is there anything else from the advisory panel that needs to be addressed by the board at this meeting? Kelly.

MR. PLACE: One thing on the circle hooks, I sort of had a related question on that. That was part of the broader context of trying to decrease discard mortality, always a good valuable thing to do in any fishery. Since we seem in some respects to be entering the golden age of the striped bass fishery, we've been looking at the discard mortality in the recreational sector.

That's obviously gone up rather significantly and it's good to see that it has come down, apparently, in the commercial fishery. Discards on either side – I think one of things I hope to do on the advisory panel is to concentrate in converting these discards into either landings on the commercial side or additional recreational opportunities on the recreational side; in other words, just reduce the discard mortality.

I guess I'm asking the board is there a sense that if over time we can demonstrably decrease discard mortality in either fishery, that those decreases of the mortality, which presumably is taken off quotas from the outset, if those can be converted into additional recreational opportunities; or, in the commercial case, additional landings?

I do understand there would have to be demonstrable demonstration of that, but I'm just asking the sense of the board on that. It wasn't just circle hooks that are discard mortality issues. We're looking at everything from the size of line, every point that introduces a stressor on fish, especially in the recreational right now. We'd like to identify every possible thing that we can do to reduce that mortality and then have additional opportunities. Any ideas to those points, please give them to us.

CHAIRMAN GIBSON: I hope the board's position that they would like to see any opportunities to convert discarded catch into landed catch, but I'll let Pat speak to that.

MR. AUGUSTINE: Thank you, Mr. Chairman. The Mid-Atlantic has taken on a task with one of our subcommittees to develop a communication tool, if you will, to go to bait-and-tackle stores, to develop a CD and have a website as to catch and release, particularly striped bass. Jeff Deame is one of our committee chairs, and he has contacted literally all the hook manufacturers to come up with a common hook definition that would fit a circle hook.

That should be coming along probably in the next two meetings. I know that Jeff did contact ASMFC and looked at documents that ASMFC has put together in the past and is encompassing some of that information. I'm sure if we get in touch with the Mid-Atlantic, through Dan Furlong, he'll make that information available. But, it's all communication and handling fish, dehookers and a variety of things that deal with reducing mortality.

MR. GROUT: One of the things the board should consider and also the technical committee is we've had the encouragement of circle hooks for, what, six

to eight years now. Assuming that there has been a reduction in mortality on the fish, that isn't being taken into consideration because we're still using the 8 or 9 percent as a discard mortality on a study that was done by the esteemed commissioner from Massachusetts.

At that point I don't think there were any circle hooks within your study, Paul, was there? So, there may be some – in the assessment process there may be some small amount of unrealized reduction in discard mortality because we're still using the 8 or 9 percent when circle hooks have been used in some parts of the fishery already.

CHAIRMAN GIBSON: Brandon, is anything like that going to be taken up by the technical committee of possible changes in the selectivity pattern or partial recruitment or small sizes because of circle hooks or any other fishing practices?

MR. MUFFLEY: Well, anything I guess could be taken up by the technical committee. We haven't discussed that specifically at this point. During the last addendum process where we talked about bycatch and discard, certainly, applying the 8 or 9 percent across all ages and all times has come up in terms of how can we come up with better estimates applying the different hook-and-release mortalities at different times on different size fish. Gary Nelson, I know, is working on some modeling efforts with that, but at this point it's not like a focus on the technical committee's end at this point.

CHAIRMAN GIBSON: Okay, I had A.C. next, and I'm running up against my timeline, and I've got another advisory issue to take up.

MR. A.C. CARPENTER: On the circle hook issue a very limited survey of some tackle shops in our area indicate that, yes, we have been successful in our public education of circle hooks in getting them on the store shelves. What we've not been successful at is getting them off of the store shelves and into the hands of the fishermen, so their impact may be somewhat limited in the real world, but at least we have gotten them onto the store shelves in some of the tackle shops.

CHAIRMAN GIBSON: Thank you, A.C. Anything else on this agenda item? Seeing none, we have technical committee nominations. Nichola.

TECHNICAL COMMITTEE NOMINATIONS

MS. MESERVE: Thank you, Mr. Chairman. We have two nominations for the board's approval for the technical committee. They are Cherie Patterson of New Hampshire Fish and Game Marine Resources Division. She has been nominated to fill the vacancy left by Doug Grout's departure from the committee. Also, Carol Hoffman of New York DEC Diadromous Fish Unit has been nominated to fill the vacancy left by Vic Veccio's departure from the committee.

MR. AUGUSTINE: Mr. Chairman, **I move that we accept both of these nominees to join the Striped Bass Technical Committee.**

CHAIRMAN GIBSON: Thank you. Is there a second? George LaPointe seconded. Any need for discussion or caucusing on the part of the board on this motion? Seeing none, all in favor; any opposed; any abstentions; null votes. They're appointed; congratulations. Is there any other business to come before this board?

DR. WILSON LANEY: Thank you, Mr. Chairman, just one quick brief item relative to the Cooperative Winter Tagging Cruise. I got a notification from the Pascagoula Lab that the Oregon II, which is the vessel we normally use, is not going to be available for the 2009 cruise.

I just wanted to report to the board that I will be working with the executive director, and Mr. Beal, I'm sure, will be involved probably, and Mr. Meyers and other NOAA folks to come up with Plan B or Plan C. Plan A, of course, was the Oregon II, and it doesn't look like that will be possible. It's going to be in drydock during the period of time that we normally use it, so we'll work to that end to get another vessel and we'll keep you posted.

CHAIRMAN GIBSON: Thank you, Wilson. Any other business for the Striped Bass Board?

MS. MICHELLE DUVAL: Thank you, Mr. Chairman, just a point of information for the board, just to let everyone know that North Carolina's Estuarine Striped Bass Management Plan is coming up for review this year, so we're getting ready to assign a committee to review that. We should hopefully have something for a peer review out soon. Thanks.

CHAIRMAN GIBSON: Thank you. Anything else for striped bass? Yes, Russell.

MR. RUSSELL DIZE: Mark, while we're considering some these things that have been brought

up by the committees, in Maryland we're being devastated in the crab industry by several things. One of them is striped bass. If you could liberalize – it's something that should be talked about when we have more time, but to liberalize this a little bit more would really help Maryland and Virginia. As they say, we're being eaten out of house and home by the striped bass.

We are now going to restrict our crab industry harder than it has ever been restricted in Maryland. We're going to take off 34 percent of the commercial – 31 percent of the commercial catch, which is going to devastate our fall fishery. A lot of this is coming from striped bass, which is protected; and black drum, which is protected; and also by cownose rays, so we're being devastated in this fishery by other fisheries.

I think that this group should think about liberalizing commercial and recreational catches. I just think that you can walk on the striped bass in the Chesapeake Bay. We've got them from five feet of water all the way to the middle of the channel. I think it's hurting our commercial crab industry, and I just think this group should talk about it and talk about, you know, what we could do to help Maryland and Virginia, because this is really devastating. Thank you.

CHAIRMAN GIBSON: Thank you, and it's my understanding that those haven't necessarily come off the table, the possibilities of relaxation of commercial and recreational harvest. We're just waiting for an updated report on the biological reference points to find out if there is a margin there and an increment for relaxation. Unless there is an objection from the board, I would suggest that those kind of issues that Russell has raised be brought back into your memory at the time the reference point discussion comes up. Pat Augustine.

MR. AUGUSTINE: Thank you, Mr. Chairman. I thought that was an assumption that was going to happen and that all of the items that are on this list that were being affected by the technical committee's forthcoming work in August, if it's done in August, that these other items should be put back on the table.

If any of them need any background information above and beyond where we are now, maybe that could be a task that they could also look at. They've got a full plate right now and we want to make sure they get that part of their done. By all means, I think these items should be on the next meeting.

MR. MILLER: Just if I may quickly follow up, Mr. Chairman, to the issue Russell raised and that Pat mentioned. I think as we had a brief discussion today concerning potential new biological points in lieu of large year classes produced in 2003 and perhaps moving that biological reference point up, we have to realize that there are other effects of such a large biomass of striped bass.

Russell has mentioned one possibility; another is effects on weakfish and effects on American shad and effects on river herring. We have to keep these things in mind rather than strictly rely on how much biomass of striped bass we can produce. I suspect ultimately we can produce a lot, but at what impact? We need to keep that in mind in the future. Thank you.

ADJOURN

CHAIRMAN GIBSON: Thank you, Roy. Anyone else want a bite at the striped bass apple? Is there a motion to adjourn? We stand adjourned, thank you.

(Whereupon, the meeting was adjourned at 2:50 o'clock p.m., May 5, 2008.)