

**PROCEEDINGS
OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC MENHADEN MANAGEMENT BOARD**

**February 9, 2005
Alexandria, VA**

Approved May 11, 2005

ATTENDANCE

Board Members

Lewis Flag, ME DMR
Patten D. White, ME Gov. Appte
John Nelson, NH F&G
G. Ritchie White, NH Gov. Appte.
William Adler, MA Gov. Appte.
Dr. David Pierce, MA DMF
Vito Calomo, MA, proxy for Rep. Anthony J. Verga
William Adler, MA. Gov. Appte.
Mark Gibson, RI DFW
Everett Petronio, RI Gov. Appte.
Eric Smith, CT DEP
Fred Frillici, CT proxy for Sen. George L. Gunther,
Dr. Lance Stewart, CT Gov. Appte.
Brian Culhane NY, proxy for Sen. Owen H. Johnson
Pat Augustine, NY Gov. Appte.
Gordon Colvin, NY DEC
Tom Fote, NJ Gov. Appte.
Bruce Freeman, NJ DF&W
Ed Goldman, NJ, proxy for Assemblyman Robert
Smith

Jeff C. Tinsman, DE Div F&W
Bernie Pankowski, DE proxy for Sen. Robert
Venables
Larry Simms, MD proxy for Sen. Richard F. Colburn
William P. Jensen, MD DNR
Bruno Vasta, MD Gov. Appte.
A.C. Carpenter, PRFC (Vice Chair)
Jack Travelstead, VMRC (Chair)
Ernest Bowden Jr. VA, proxy for Catherine
Davenport, Gov. Appte.
Niels Moore VA, proxy for Sen. John Chichester
Damon Tatem, NC Gov. Appte
Preston Pate, NC DMF
John Frampton, SC DNR
Robert Boyles, SC, proxy for Sen. John Drummond
Spud Woodward, GA DNR
John Duren, GA, Gov. Appte.
Gil McRae, FL FWCC
Steve Meyers, NOAA Fisheries
Dr. Jamie Geiger, USFWS

Atlantic Menhaden Technical Committee

Matthew Cieri, ME DMR
Gary Nelson, MA DMF
Jason McNamee, RI DF&W
Peter Himchak, NJ DF&W
Alexei Sharov, MD DNR (Vice Chair)
Ellen Cosby, VMRC
William Windley, Advisory Panel Chair

Trish Murphy, NC DMF
Brian Chevront, NC DMF
Behzad Mahmoudi, FWC, FMRI (Chair)
Erik Williams, NOAA Fisheries
Joseph W. Smith, NOAA Fisheries
Douglas Vaughan, NOAA Fisheries

Staff

Vince O'Shea
Robert Beal

Nancy Wallace
Braddock Spear

Guests

Peter Abbott, MSSA
David Newton, MSSA
Margaret M. McBride, NOAA Chesapeake Bay
Karl Blackenship, Bay Journal
Kevin Jellner, Ches. Res. Consortium
Charles Hutchinson, MSAA
Karen Ripple, CCA MD
Andrew S. Trechnelli, MSSA
Phillip L. Todd, MSSA
Clint Waters, MSSA
Robert Geisler, MSSA
Bob Watson, MSSA, CCA, RFA

Robert Shenton, MSSA
Mike Gesman, MSSA, CCA, RFA
Daniel Sides, MSSA, CCA, RFA
Chuck Prah, MSSA, RFA, CCA,
Mel Goodman, MSSA, RFA, CCA
Bill Goldborough, Ches. Bay Foundation
Dick Schmachtenberg, Potomac River Comm.
Jerry Gaff, MSSA
Dick Brame, CCA
Sherman Baynard, CCA MD
Diane Baynard, CCA MD
Amy Schick Denney, Environmental Defense

Louis Daniel, NC DMF
Dan Dugan, RFA
Chris Salp, CCA
Kelly Place, VA Leg. Appte Proxy
Ken Hinman, NCMC

TABLE OF CONTENTS

Call to Order, Chairman Jack Travelstead.....5

Approval of Agenda.....5

Approval of Proceedings.....5

Public Comment.....6

Review Management Charges to Staff and Technical Committee:

Item A.....12

Item B:

TC Report.....13

Discussion.....14

Item C:

TC Report.....18

Discussion.....19

Item D:

TC Report.....22

Discussion.....23

Item E:

TC Report.....34

Discussion.....61

Item F:

TC Report.....35

Discussion.....36

Additional Discussion.....40

Next Steps/Timeframe.....41

Other Business.....58

Adjournment.....58

Summary of Motion

Move to initiate an Addendum to the Atlantic Menhaden Management Plan under the adaptive management provisions of the Plan to limit the catch of menhaden in Chesapeake Bay by purse seine, to no more than 110,400 mt annually in 2006 and 2007 and to initiate a research program immediately to determine the status of menhaden populations in the Chesapeake Bay in order to conserve the species while more complete population information is obtained to assess whether localized depletion is occurring in Chesapeake Bay.

Motion made by Mr. Petronio, second by Mr. Jensen. Motion carries [12 in favor, 3 opposed (MA, VA, PRFC), 1 abstention (NMFS)].

**STATES MARINE FISHERIES COMMISSION
ATLANTIC MENHADEN MANAGEMENT
BOARD**

**Radisson Hotel
Alexandria, Virginia**

February 9, 2005
- - -

The meeting of the Atlantic Menhaden Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Suite of the Radisson Hotel, Alexandria, Virginia, on Wednesday, February 9, 2005, and was called to order at 8:00 o'clock a.m. by Chairman Jack Travelstead.

WELCOME AND INTRODUCTIONS

CHAIRMAN JACK TRAVELSTEAD: Good morning. Welcome to the Atlantic Menhaden Management Board. This is a little bit different gathering than we've had in the past. This morning we're joined by most of the members of the technical committee.

I think this is the first time we've met jointly with our technical committee in many, many years. Seated to my left is Dr. Behzad Mahmoudi who is the chair of the technical committee, and you will hear a lot more from him this morning.

One word of caution. You will note that in today's agenda we have been allotted four hours for the meeting, which is quite a bit more than we normally are allowed. But please don't let that lull you into thinking that we have lots of time.

There is a very lengthy and complex agenda before you that will I think involve a lot of discussion, questions and answers. I would encourage everyone to participate, including all of the members of the technical committee.

For Joe's benefit, I would like to go around the table and have the technical committee members identify themselves so that he can start to get familiar with your name; and then ask, when you speak, that you start by giving your name so that Joe can get it accurate in the record that we're keeping. So, Behzad, if you could start.

DR. BEHZAD MAHMOUDI: I'm Behzad Mahmoudi, Florida Wildlife Research Institute.

DR. MATTHEW CIERI: Matt Cieri from Maine DMR.

MS. TRISHA MURPHEY: Trish Murphey with North Carolina Division of Marine Fisheries.

DR. DOUGLAS VAUGHAN: Doug Vaughan with National Marine Fisheries Service, Beaufort, North Carolina.

DR. JOSEPH SMITH: Joe Smith, National Marine Fisheries Service, Beaufort Lab.

DR. ERIK WILLIAMS: Erik Williams, National Marine Fisheries Service, Beaufort Lab.

MR. BRIAN CHEUVRONT: Brian Chevront with North Carolina Division of Marine Fisheries.

MS. ELLEN COSBY: Ellen Cosby, Virginia Marine Resources Commission.

MR. JASON McNAMEE: Jason McNamee, Rhode Island Division of Fish and Wildlife.

MR. GARY NELSON: Gary Nelson, Massachusetts Division of Marine Fisheries.

MR. ALEXI SHAROV: Alexei Sharov, Maryland Department of Natural Resources.

MR. PETER HIMCHAK: Peter Himchak, New Jersey Division of Fish and Wildlife.

MR. CLIF TIPTON: Clif Tipton, U.S. Fish and Wildlife Service, Annapolis.

APPROVAL OF AGENDA

CHAIRMAN TRAVELSTEAD: Okay, thank you all very much for being here. Now let's move on into the agenda. You all have a copy of the agenda. Are there any changes proposed at this point? Seeing none, the agenda will stand as printed.

APPROVAL OF PROCEEDINGS

You were provided a copy of the proceedings of the November meeting. Are there any changes to the minutes of that meeting? Seeing none, they will stand as printed.

Item 4 is public comment. We've allotted 10 minutes for public comment. We will try to allow some

public comment throughout the meeting today if time permits. Can I see a show of hands at this point as to who wishes to speak at this time.

Okay, we have six people showing. I'll give each of you two minutes, and we'll start in the first row with you, Mr. Price, and then proceed to the back of the room.

PUBLIC COMMENTS

MR. JAMES E. PRICE: Thank you, Jack. My name is James Price, President of the Chesapeake Bay Ecological Foundation. I wanted to start out by explaining my response to the commission's response about a paper that I have been working on was incorrectly read at the technical committee meeting, and the corrected copy has been passed out to you this morning.

I conducted this paper. I worked on this paper following the workshop; and as I did, I found things in the assessment that I thought were interesting and actually gave a different opinion of what was happening with the stock.

In addition, I worked with Dr. Overton and included data that he had assembled and published concerning striped bass predation on Atlantic menhaden. I found that by using the information in the menhaden assessment combined with the striped bass bioenergetic studies, you could explain the decline in the Atlantic menhaden stock.

I contacted Mr. O'Shea and sent the commission my findings. He agreed to have my paper reviewed by his staff and by members of the Menhaden Technical Committee. I received a letter back from Mr. O'Shea on Friday, February the 2nd and haven't had a chance to talk to him personally and thank him for his help.

I made the adjustments in my paper, and the review on my report concerning the ten indicators didn't require any changes in its wording, and that's the second page that I passed out.

I've also met with Mr. Howard King, Maryland Fisheries director, and his staff and have received a similar review of my findings, including agreement on the report that my ten indicators were factual.

I believe this raises the issue that within the menhaden assessment you can find information that leads to two completely different conclusions as to the status of the menhaden stock. Therefore, I am asking that the board and the commission consider the scientific evidence in the assessment that

indicates that the model is overestimating the SSB and reach their own conclusions.

I'm also in the process of funding and conducting one of the largest diet studies of its kind on migratory striped bass off of North Carolina, and we're going to make this information available to the commission because that information is lacking in the multi-species VPA.

My intention is to try to find a way to manage Atlantic menhaden better and not have the conflict that we seem to be having at times. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you. Who is next?

MR. ADAM HEWISON: My name is Adam Hewison and I represent Baytruth.org. I'd like to thank the Atlantic States Marine Fisheries Commission for the time this morning. I'd like to share with some facts, irrefutable facts in this, matter of fact.

Fifty years ago there used to be 150 ships and over 23 reduction factories along the Eastern Seaboard processing and catching menhaden. Fifty years later we have less than 10 ships.

We have one factory that's owned by one New York Stock Exchange Company based out of Houston, which is controlled by another New York Stock Exchange Company, which is further controlled by one family whose patriarch happens to be the 250th wealthiest man in America. And for football fans, he also owns the Tampa Bay Buccaneers.

If this was such a robust fishery, we would not have seen the contraction in the last 50 years from 150 ships down to less than 10. We have now gone from 23 reduction factories down to 1.

The fact of the matter is these ships and factories went out of business because they could not make a profit. It's very simple. They could not make a profit because they could not catch enough fish and other competition, but there were no fish. The fish were contracting since that time period.

I don't think it's fair to pick on Omega Protein at this point in time. They're doing what they should be doing, and that's catching fish and making a profit. It's a New York Stock Exchange Company, and companies are in business to make profits.

However, there is an inherent conflict of interest here. In order to make profits, companies like to

grow. Every company wants to grow. In order to make profits, they have to catch more and more fish.

As a matter of fact, in a recent Securities Exchange Commission document, which is a 10-Q form, which was posted on November 12th of '04, it states in the document increased harvesting efforts, which means they need to catch more and more fish.

Catching more fish is going to destroy the fishery in the Chesapeake Bay. There's no question about it. Fishery history has shown us that we are seeing collapses in many, many fisheries. In the Chesapeake Bay this is a vital fish for our bay.

There is a solution, however. In the solution, this does not pertain to bait fisheries or the pound netters, and that would be an immediate moratorium on fishing. Interested parties and groups following these proceedings are willing to make this offer to Omega Protein.

They're willing to pay \$50 million to Omega Protein not to fish in the Chesapeake Bay. We wanted to make this offer in a public forum so everybody would be aware of it and cognizant of the fact.

We want to make \$50 million to Omega Protein not to fish in the Chesapeake Bay. I thank the commission for its time. My name is Adam Hewison. I can be contacted at Baytruth.org. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you. Next speaker, come on up.

MR. KEN HINMAN: Thank you, Mr. Chairman. My name is Ken Hinman, President of the National Coalition for Marine Conservation. We have submitted written comments that I think have been distributed that you all have so I'll just summarize our recommendation for today.

We are urging that the management board take a comprehensive two-pronged approach to the menhaden issue at this meeting. We urge the board to take two complementary actions. One is to establish specific management goals for menhaden with regard to protecting its ecological role.

In our written comments we have four suggested changes to the Menhaden Fishery Management Plan that we hope you will consider during today's discussion. I know that's a charge of today's meeting to give management guidance to proceeding towards an ecosystem-based approach to this fishery.

And, second, we urge the board to institute a cap on menhaden fishing at recent levels as an interim management measure until additional scientific information becomes available.

We believe it is critical that interim management actions should be directly linked to ongoing research initiatives to provide protection for the resource during this period of uncertainty while the ASMFC develops a long-term ecosystem-based fisheries management program for menhaden and other species.

We also believe that this interim management action would serve as a positive incentive to make it a priority to answer the questions that I think all of us on all sides of this issue want to see answered as soon as possible. Thank you very much.

CHAIRMAN TRAVELSTEAD: Thank you, Ken. Who is next?

MR. WARREN ZINC: My name is Warren Zinc. Everybody knows me as Skip. I'm just local fisherman. I wanted to come down and put my two cents in. I really think the thing to do is shut it down.

I've read everything I can. Some of it is over my head but you guys are looking at a cap. I don't think that's going to do it. The fishery is in dire straits right now. It's down to probably 20 percent of what it should be, and you're still going to let them hammer them.

The big rockfish, they're doing what they should be doing. They're eating their bait fish. The Upper Bay all the way down past Solomon's, there are no menhaden. The little bit that trickles in, they're gone. The pelicans, the rockfish, the normal predators eat them.

Like the guy said, Omega Oil, they've got a vested interest in it. Please protect the fishery. Let the fish come back. The rockfish, you can look back on that and see what happened. You shut it down for just five years. That's all it took.

Shut the menhaden down. Let them come back and then manage them. Right now you're going to manage, manage, manage, and then there's nothing. There's 40-some people, you are going to look at each other and go, "Oh, boy, that didn't work." And there won't be anything to come back. It's the only way.

I mean, I really felt when I came here there would be ten people. I think I see why it takes so long to get stuff done, but if you all can vote -- you're laughing about this. This is a serious matter.

I mean, the bay up our way is dying. We need help with it. And the menhaden, all day long they're eating the little nutrients, the stuff that's killing the bay up our way. You go down to Virginia Beach, the water's crystal clear.

It's pretty and there's bait fish. There's birds. There's fish. You get much above Solomon's Island, it's a dead zone. That's all I can do. Thanks.

CHAIRMAN TRAVELSTEAD: Thank you, Skip. Next speaker. Charlie, come on up.

MR. CHARLES HUTCHINSON: My name is Charles Hutchinson, and I'm here representing the Maryland Salt Water Sportsmen's Association. Each of the commissioners has received a copy of a white paper containing our recommendations for actions to be taken by the board. Since you've had them for some time, I don't intend to repeat them here.

You may have noticed that there are more spectators today than are usually present at these meetings. A year ago menhaden weren't of much interest. Today with the media coverage the public is much more aware of menhaden's role in the bay and the regulations which govern the harvesting of them.

Consequently, more people are here to see for themselves how the management board handles its regulatory responsibilities. Considering the value of menhaden in the role of improving water quality and considering the failure of the Bay Restoration Program to produce positive results -- much of which is blamed on administrative and political bodies' inability to meet responsibilities -- it shouldn't be surprising that increased attention is being given to how this management board functions.

There is a rapidly growing dissatisfaction with the perceived inability of administrative organizations to do what they were created to do. I believe that everyone recognizes that menhaden have many roles in the bay ecosystem and that the present regulations recognize only the need for sufficient stocks to sustain the reduction industry.

The primary subject for today's meeting was to set forth new objectives to consider the forage and ecological functions as well as the commercial values which presumably would result in the technical

committee setting new targets and reference points.

One question is the need for new objectives since these same objectives are clearly stated in the 2001 Amendment Number 1 of the Fishery Management Plan. What has been lacking is a management plan which requires action to meet those objectives.

So for several years now, the knowledge of what is needed has been evident but measurable progress has not. The ASMFC is set up in such a manner as to provide governing action with many fewer political administrative layers.

The bay desperately needs more menhaden throughout the main body and its tributaries. Our collective objective should be to make that happen now. The priorities for the utilization of the resource should be structured to give the greatest benefit to the most people.

If the resource which is apparently diminishing can't fill all of the needs, then it needs to be shared on a more equitable basis. More research cannot take the place of proper management.

Today you have the opportunity to provide effective management on a timely basis. We look forward to seeing that demonstrated today. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you, Charlie. Next.

MR. DAN DUGAN: Thank you, Mr. Chair. I'm Dan Dugan from Delaware with the RFA, and I'd like to let it be known that the RFA from Delaware strongly stands behind the MSSA and their opinion in what should be done with the menhaden, and there's so few of them. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you. Anyone else? Bill and then Jeff.

MR. WILLIAM GOLDSBOROUGH: Thank you, Mr. Chairman. As most of you know, in 2001 --

CHAIRMAN TRAVELSTEAD: Give us your name, Bill.

MR. GOLDSBOROUGH: I beg your pardon. I'm so familiar with sitting at this table and having a name plate in front of me, I forgot, Joe. My name is Bill Goldsborough. I am not here as a member of this commission. I am here representing the Chesapeake Bay Foundation, a non-profit

conservation organization.

As you all know, in 2001 this commission adopted a new management plan for menhaden. Many of you, and myself as well, worked hard to make this a quality document. And for the first time ever it formally recognized the important ecological role that menhaden play in our coastal waters.

It's important to emphasize that this is a role that yields tangible benefits. This is not some abstract thing. These are benefits in the form of other valuable fisheries like striped bass, weakfish and bluefish, all of which depend on menhaden for forage, and coastal water quality which menhaden help maintain through its filter feeding.

And yet four years after the adoption of that plan, we have taken no management action to address these priorities. Having said that, I want to thank the board for the step taken at the last meeting that led to this joint meeting today, and in particular the state of Maryland for making the motion that was adopted then, and recognize that this meeting today is to try and sort out some of the options that are available to the board and the commission for addressing these concerns, but recognize that these really involve longer-term considerations, probably two to four years by most estimates before any action would be taken.

The question remains what of the immediate term; the interim period while they wait for attention to the menhaden's ecological benefits stretches to five, six or even eight years. I wouldn't suggest that the board take arbitrary action just for action's sake, but some would suggest that the science available for our consideration stops at the '03 stock assessment, which did conclude that the stock was not overfished and was not experiencing overfishing.

However, there is much more scientific information available for our consideration. There is a peer review of that stock assessment, and the peer review noted that it was not that the stock assessment was not a useful tool for evaluating localized depletion that can occur when the fishery is concentrated in one part of the coast.

That is the circumstance now. Seventy-five percent of the reduction catch in the last year for which there was information, 2003, was taken out of Chesapeake Bay, the breadbasket for many of our valuable East Coast fisheries.

Furthermore, numbers of menhaden in the coastal

population have been going down for over 10 years. The numbers are approaching the previous historic low during the 1960s when the stock was declared overfished.

In addition to that, menhaden recruitment in Chesapeake Bay has been very low for ten years. That has got to be a concern with Chesapeake Bay being the nursery ground for striped bass and other valuable fisheries.

We know about striped bass health concerns. They were reported to this board last May after a symposium on the topic. Striped bass have reduced weight-to-length ratios in Chesapeake Bay, reduced body fat, increased incidence of disease, 70 percent micobacteriosis found by repeated surveys. Their diet has shifted from in the early '90s age three to six striped bass in Chesapeake Bay, their diet consisting of 65 percent menhaden to ten years later when it was estimated to be around 21 percent.

So menhaden number is going down, striped bass numbers and demand for forage is going up, granted, and the amount of menhaden in the diet going down dramatically and these health concerns mounting.

So these concerns have led some to advocate very definitive actions -- you've heard some of them already this morning -- severe quotas, removing the gear entirely from Chesapeake Bay, even a moratorium.

While all such options should be on the table, I would ask you only to consider what a prudent manager would do. I believe that a cap on the purse seine catch of menhaden, including removals from Chesapeake Bay, at current levels would be the prudent thing to do.

It would not be onerous. It would not be dramatic. In fact, it's overly reasonable. I suggest that the average over the last five years, when the catch has fluctuated around a steady level, would make the most sense.

Why is this the case? Well, there is currently no limit on the amount of menhaden that can be taken in this fishery, no limit on the catch, which is astounding in this day, especially given that it's such a large volume catch which makes Reedville, Virginia, one of the top three ports in weight landed in the United States annually.

That's including the Gulf and the West Coast and Alaska. Seventy-five percent of that is coming out of

Chesapeake Bay. Also, the industry has repeatedly told this board, including at the last meeting, that it has no intention of taking any more fish, so that suggests the reasonableness of this proposal.

And this gear is large-scale, very efficient gear, so notwithstanding those assurances, it has the potential to dramatically increase its catch in a short period of time, as evidenced by last May when the catch went up five-fold over the previous May.

There is also the potential to increase the effort. Omega Protein, in fact, brought two boats around from the Gulf this fall, under contract to Beaufort Fisheries, and added that amount of effort.

There is no limit on the potential for more of that to happen, and in fact I would note that the industry fought to prevent fleet size from being included as a part of the tool box in the current management plan.

So there has been much discussion of this option during last year, the option for a cap. It's not a new concept. It has been vetted over and over. There was a motion tabled from the previous meeting, so I urge the board to untable and consider this motion, recognize that it's not a long-term solution but it is a prudent interim action, and it is something that could be tailored to sunset when ecological reference points or some of the other measures you'll be considering today are developed and implemented. Thank you, Mr. Chairman.

CHAIRMAN TRAVELSTEAD: Thank you, Bill. Jeff.

MR. JEFF KAELIN: Thank you, Mr. Chairman. Members of the technical committee and the management board, the printer in the building wasn't working. The printer in the building wasn't working, so I've got to read this off my laptop, and therefore we don't have any ability to give this statement out to you.

I'm Jeff Kaelin. I'm here today representing Omega Protein in these matters before you. It's a matter of general knowledge that the issues of menhaden reduction fishing in general and in the Virginia state waters of the Chesapeake Bay, more specifically, have generated a great deal of controversy and public discourse.

Undoubtedly, environmental and recreational fishing groups involved in this dialogue have the unquestioned right to express their opinions and influence public debate. Omega Protein is

concerned, however, that some of this advocacy has crossed the line and has put both the commercial fishing industry and the commission in a negative and false light.

As only the most recent example, the Baltimore Sun's Outdoor Sports columnist recently accused the ASMFC of abdicating its management responsibilities and implying that it ignores science-based management because it has been bullied by Omega Protein.

Falsehoods and misinformation by groups and individuals who are intimately involved with the menhaden management process and thus have access to accurate information is even more disturbing.

We have detailed some of the more egregious examples of this public misinformation campaign along with the factual information developed by the ASMFC, and you will receive this detailed information in a letter following this meeting.

The common thread running through these various websites and other public pronouncements is that the Atlantic States Marine Fisheries Commission lacks credibility and that it has allowed raw economics to dictate the management of this fishery.

Therefore, Omega Protein asks the commission to join our company in refuting the worst excesses of this coordinated campaign of disinformation -- and I don't think you can call it anything other than that -- and to call upon those who seek to officially participate in the management process to maintain a respectful and honest colloquy, focusing on science.

The coalition of groups that are intimately involved in the menhaden management process, including a member of the Menhaden Advisory Panel and others who are in a position to be aware of the ASMFC's work and analysis of the fishery, should keep this in mind, I think.

The ASMFC and the public would have the right to expect, therefore, that the representations made by the coalition would be accurate and truthful. Moreover, these groups and their constituent organizations have repeated a number of statements that are contradicted by the scientific findings of the commission.

The most pernicious of these are those that relate to the biological status of the menhaden stock. There is simply no truth to the contention that the population of young menhaden has been at an all-time low for

more than a decade, for example.

While no one disputes that recent recruitment has been low, below historical averages -- and we'll hear some very excellent analysis from the technical committee as we did yesterday on this matter -- the latest stock assessment report clearly shows that Age 0 and Age 1 menhaden are well above the recent lows reached in the late '60s.

The implication of this propaganda, to wit, that poor recruitment is the result of overfishing by the reduction fishery, is likewise put to rest by the ASMFC's scientific staff. I specifically remember many times the technical committee reminding us all that there is no relationship between fishing in the Chesapeake Bay and recruitment, for example, because of the larval distribution of the fish and so forth.

The chair of the commission's Menhaden Advisory Panel is president of another group that has been actively distorting the ASMFC's and Omega Protein's record with respect to this fishery.

In a so-called "white paper", the Maryland Saltwater Sportsmen's Association also calls for the complete elimination of purse seining in all state waters. Moreover, this group accuses the commission of failing in its stewardship role with respect to this fishery.

This allegation apparently stems from certain members of the association's view of the status of the resource. For instance, the white paper inaccurately repeats the charge that the menhaden stock assessment record shows low levels of these fish. And, of course, the latest peer-reviewed stock assessment shows the opposite, that Atlantic menhaden stocks are healthy, not overfished and sustainable.

This paper also includes a number of completely unsupported statements such as that the number of menhaden larvae entering the Chesapeake has declined for more than a decade and the economic value of menhaden used for rendering doesn't come close to the value as forage. I don't know how they figured that one out.

The commission and the public have a right to expect higher standards from organizations who are so intimately involved in this process. Other organizations have been even more pointed in their criticisms and less informed, baldly accusing the ASMFC of failure in its statutory duties and so forth.

This is becoming an echo chamber in which this misinformation is attaining the status of reality by endless repetition, it seems. They also make enumerable and scurrilous accusations regarding Omega Protein and its business plan that I will not repeat and rebut here.

The purpose of this testimony is simply to bring these issues before you today and request that you loudly and publicly refute the charges that are not factual or scientifically based. And this issue is reaching a fever pitch, and that's unfortunate.

We've seen this effect. We're witnessing this effect on a daily basis. And, as you know, we have been here many times to say to you that we strongly support science-based and sustainable management of this important and historical fishery.

Others would just simply let the fishery be eliminated and not worry about the human and economic costs that would follow by eliminating a sustainably managed fishery. We're guided by the principle of sustainable use of the fisheries resources.

And if political pressure leads to a situation in which the commission feels constrained to implement measures not justified by the best available science, we'll have abandoned the precept of fishery management around sustainable reference points, so we hope that that doesn't happen.

We look forward to working with you in this process. We're looking forward to the research agenda being fully fleshed out so that we can all participate in it. We're going to hear more about that today.

Finally, I'll just say something on a personal note. I'm from Maine. I've been involved in commercial fishing for about 30 years. I also am a licensed boat captain. And, the striped bass that we find on the Penobscot River where I live are fat and healthy. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you. Any further public comment? All right, seeing none, we're going to move along in the agenda. You'll recall the motion that was made at the last meeting which essentially has been rewritten in the form of Agenda Item 5, which lays out a number of tasks for both the staff and the technical committee.

First, we're going to hear from Nancy on a report from the other forage fish fishery management plans, and then we'll proceed through the other parts of

Agenda Item 5, hearing first from Dr. Mahmoudi on the results of the discussions from the technical committee yesterday.

There will be an opportunity for the board to ask questions of the technical committee to clarify any points that are made, and then the technical committee will have one or more questions of the board that will need to be answered to aid them in their further deliberations of each of these items. So more or less, that's how we'll proceed through Agenda Item 5. We'll start with Nancy.

REVIEW MANAGEMENT CHARGES TO STAFF AND TECHNICAL COMMITTEE

ITEM A

MS. NANCY WALLACE: Thank you. At the October workshop that we had with outside experts looking at menhaden, one of the research recommendations was for staff to go back and compile a list of other forage fish management plans and see how other states handle their management.

The board followed up on that recommendation in the form of a motion at the last meeting. Staff went back and compiled some forage fish management plans, focusing mostly on Washington, California and Alaska because that's what was mentioned in the workshop.

I'd like to note that this is definitely not a comprehensive plan of all the forage fish management plans out there. Yesterday when I gave this presentation to the technical committee, they did have some other additions so I'll just briefly walk through it and start now.

Starting with the Washington Forage Fish Management Plan, you all received a summary of the plans in your briefing CD. Hopefully, you had a chance to look at them. This plan was adopted in January 1998.

One of key statements says that no management strategy will produce stable populations of forage fish; however, proper management action can help maintain healthy populations. The plan proposes an approach that manages forage fish from an ecosystem-based approach and utilizes a precautionary, conservative approach.

Under the ecosystem management heading, this plan emphasizes the role of forage fish in the ecosystem and considers catch on a secondary basis. A primary

consideration is the availability of forage fish to provide a food source for salmon, other fish, marine birds and marine mammals.

The precautionary approach utilizes caution when the agency is faced with a decision and a lack of information. The approach calls for reducing fishery or other activities if there is a reason to believe the activities will cause significant harm, even if such a link has not been established by clear, scientific evidence.

Just a note, yesterday at the technical committee, it was noted that these fish were in overfished conditions when this plan was started.

Management of northern anchovy, in Washington anchovies are not consistently available in numbers necessary for commercial use. They're important as live bait for salmon and sturgeon fisheries. Currently no anchovy stock condition or habitat assessment activities are conducted. Other than commercial regulations contained in the administrative code, there is little management of the anchovy fisheries.

Management of Pacific herring in Washington state. Puget Sound herring are fished in extremely conservative levels at an annual exploitation rate of about 6 percent. The sport bait fishery and the spawn on kelp fishery are regulated by area, season, gear type and harvest guidelines. In 1973 the Washington state legislature froze herring fishery licenses for each gear.

Moving on to the Alaska Forage Fish Management Plan, some language from the plan, "Forage fish perform a critical role in the complex marine ecosystem by providing the transfer of energy from the primary and secondary producers to higher trophic levels. The higher trophic levels include many commercially important fish and shellfish species. They are also important to marine mammals and sea birds."

It goes on to say, "Abundant populations of forage fish are necessary to sustain healthy populations of commercially important species." Forage fish may not be commercially taken.

However, this was contradicted yesterday during the technical committee meeting, and Dr. Williams pointed out that in Alaska, Pacific herring are fished commercially, so there seems to be a little discrepancy there that will take further research on my part.

Beginning in 1998, the development of a

commercial-directed fishery for forage fish was prohibited, and that came from the Gulf of Alaska Groundfish Plan.

Moving on to California, we looked at the draft squid fishery management plan. In addition to supporting an important commercial fishery, the market squid resource is important to the recreational fishery as bait and is forage for sea birds, marine mammals and other fish taken for commercial and recreational purposes.

In 1997 the California legislature approved a bill to establish a moratorium on new vessels entering the California commercial market for squid. In 2001 the legislature approved a bill that requires the commission to manage the squid fishery under the Marine Life Management Act.

The goals of the squid plan are to ensure long-term research conservation and sustainability, and the management of the fishery is based on fishery control rules, a restricted access program, environmental concerns and then administrative items.

Moving back over to our side of the coast, the Atlantic herring fisheries management, which is jointly managed between the ASMFC and the federal government, Matthew Cieri put together a paper comparing the herring fishery and possible management objectives for Atlantic menhaden.

I'm just going to briefly go through how the herring fishery is managed. They are managed by area-specific, hard, total allowable catches, TACs. Harvesters are to report any caught fish and indicate if they were landed or discarded at sea.

A hard TAC is a set amount of fish that can be caught in a particular area or time by sector or gear. Fishing in that prescribed management unit stops when the TAC is achieved. And they must be closely monitored.

The TACs are calculated by first setting an MSY value, then a lower OY, which is then divided among the areas using historical landings in risk assessment context. Monitoring of hard and soft TACs is important and should occur on a weekly or biweekly basis to be effective. However, the payback systems can be monitored annually. That is the end of my slide show.

ITEM B TC REPORT

CHAIRMAN TRAVELSTEAD: Questions from the board, comments on any of this? Do we want to move on? Okay, let's go to Item B, advise the management board on the likely causes of low recruitment in Chesapeake Bay and a comparison of recruitment trends in other estuaries along the coast. Behzad.

DR. MAHMOUDI: Thank you, Mr. Chairman. Let me start with the stated purpose of the board. The goal of this is to develop a revised goal and objective for menhaden management, to incorporate ecologically based reference points in the stock assessment and management measures for menhaden.

That was the stated goal of the board and the charge to the technical committee. We are also charged to prepare a preliminary report by the August of 2005 Atlantic States Marine Fisheries Commission meeting week, so that's the stated goal for us.

There are six tasks or charges to the staff and technical committee; and Nancy just presented to you the first task, to examine the existing multi-species and ecosystem fishery. So what I'll do I'll move on to the first task for technical committee.

That first task or Task 2 was to advise the management board on likely causes for low recruitment in Chesapeake Bay. The second point was to provide the comparison of recruitment trends in other estuaries.

For likely causes for low recruitment, we discussed several factors that were also discussed at the menhaden workshop a few months ago. These are in no specific order because the technical committee was really unable to assign a weight or rank these factors affecting observed low recruitment of menhaden in the Chesapeake Bay.

These include low spawning stock biomass, and on this issue the technical committee believes that this is unlikely given data from tagging study. There is no apparent relationship between resident fish in Chesapeake Bay and the following year recruitment.

The second factor was larvae not being brought into the Chesapeake Bay oceanographic processes, offshore and near-shore processes that may reduce transport of larvae into the Chesapeake Bay.

And then the next level would be poor survival to at least several months old after the larvae is transported to the Chesapeake Bay, the low survival affected by

unfavorable conditions of salinity, temperature, overall environmental factors.

The next potential factor affecting the low recruitment is predation. There is also emerging evidence that climate forces may play an important role, regime shift and long-term changes in climatological factors.

But overall the technical committee, I guess, reached a consensus that given reduced recruitment of menhaden in the Chesapeake Bay due to this changing environment, there may be an impact on the future spawning stock biomass, and that's if not compensated by other areas.

On the second component of Task 2, comparison of recruitment trends in other estuaries, there is some suggestion of an increase in recruitment in the northern area, north of Chesapeake Bay.

We found no trend in North Carolina and there were no indices in the Mid-Atlantic. So while the recruitment in Chesapeake Bay is declining, there is some suggestion of increased recruitment in other areas, and the information in North Carolina shows basically no trend.

We also discussed a trend in other forage species in Chesapeake Bay, which have shown a similar declining trend. So what I'll do, I'll stop on this task, if you have any question and discussion on that, I will be more than happy to answer.

ITEM B DISCUSSION

CHAIRMAN TRAVELSTEAD: Gordon.

MR. GORDON C. COLVIN: I have a question on the very last point. Could you identify what some of the other forage species are that are showing a similar decline, and are they likely to be affected by similar causes? And in particular, is larval transport into the bay an issue for them?

DR. MAHMOUDI: Let me ask Jason here. Jason reviewed all this data and provided a summary. Go ahead, Jason.

MR. McNAMEE: This is Jason McNamee from Rhode Island Fish and Wildlife. I concentrated mostly on menhaden. Off the top of my head, some of the other species I did encounter, one was the bay anchovy. We discussed also spot. What was the other part of your question?

MR. COLVIN: Are they likely to be affected also by larval transport as an issue into the bay, or are there other known reasons for their similar decline?

MR. McNAMEE: I think all of the reasons that we cited in that previous slide would also affect those species.

DR. MAHMOUDI: Alexei, you have a question, a comment?

MR. SHAROV: No, it was just a minor correction. The second most important forage species in the bay is bay anchovy. It's a short-lived species. It's resident in the bay, undergoes internal inside-the-bay migrations, but it's reproduction occurs within the bay, so it's not subjected to the larval transport from ocean into the bay area.

However, there was a discussion yesterday on some other species like croaker, spot. The larval of those fish are being brought by currents into the bay, so there was a suggestion from John Merriner to look into the trends and dynamics of juveniles of those species to see if there is a correlation.

CHAIRMAN TRAVELSTEAD: Bruce, you had a question?

MR. BRUCE FREEMAN: Thank you. The question I have concerns information relative to the abundance of larval fish just outside the bay. Do we have information concerning that issue?

DR. MAHMOUDI: I believe there is very little information available on trends in abundance of larvae before they settle in the Chesapeake Bay.

CHAIRMAN TRAVELSTEAD: Any other comments or questions? Neils.

MR. NEILS MOORE: I suppose this is directed towards Alexei. In terms of going back to the bay anchovy, this is a species, of course, that there is no commercial fishery for. Isn't it correct that their numbers are also considered fairly depressed these days?

CHAIRMAN TRAVELSTEAD: That was to you, Alexei.

MR. SHAROV: Well, I would probably rather say they're low. I don't know whether you call it depressed or not. And, yes, the abundances are low

in historical perspective. Most of the scientists point out that the increased predation by striped bass as a result of insufficient supply of menhaden many offer, but that's what is being said.

CHAIRMAN TRAVELSTEAD: Any other comments on this issue? Yes, Jaime.

DR. JAIME GEIGER: Thank you, Mr. Chairman. I noticed the technical committee sort of summarized the general items that they categorized as showing reduction in the population. Was there any discussion by the technical committee of particular factors or combination of factors that resulted in more or less impact on these populations? Thank you.

DR. MAHMOUDI: We were not able to really -- first of all, I said we were not able to -- given the scientific information available, we were not able to assign weight or rank these factors or look at the combination of these factors, tease out the sources of variability in juvenile abundance and look at the combined effect of two or three of these factors on the recruitment trends. The answer is, no, really we were not able to look at the combined effect of these factors on abundance.

CHAIRMAN TRAVELSTEAD: Jaime.

DR. GEIGER: Thank you, Mr. Chairman. Did the technical committee look at any short-term and long-term trends in either primary or secondary productivity as how it affected the status and trends of these forage fish species? Thank you.

DR. MAHMOUDI: We discussed the question of primary production. We found no overall decline in primary production. I believe Alexei discussed that a little bit in terms of trends in primary production in Chesapeake Bay. And, Alexei, would you want to comment on that?

MR. SHAROV: Well, I didn't have the actual data at hand, but my comment at the discussion yesterday was that my perception is, from knowing in general what is going on, I had a feeling that there is no such thing going on, but I didn't have any specific facts at hand to actually prove this. Someone might say that I was wrong, but that was my personal impression.

DR. MAHMOUDI: No particular downward trend in primary production in Chesapeake Bay has been observed?

MR. SHAROV: Well, that's what I believe. I think Bill Goldsborough or someone else could probably correct me if I'm wrong, because they certainly pay attention to those measurements.

CHAIRMAN TRAVELSTEAD: Any other comments on this issue? All right, I understand the technical committee has some questions of the board on this item.

DR. MAHMOUDI: Yes, one of the questions that was brought up was is the board concerned about within season -- given the question of recruitment and decline in the recruitment trend in Chesapeake Bay, is the board concerned about within-season localized depletion or overall long-term impact on the spawning stock biomass.

Knowing that recruitment trend, has a declining trend, are you concerned within the season depletion or much longer-term impact on the spawning stock?

CHAIRMAN TRAVELSTEAD: Or both I suppose because I guess the board could have some concerns about both, I don't know. That's what you all need to clarify. Yes, Vito.

MR. VITO CALOMO: Thank you, Mr. Chairman. I need something clarified in order to make intelligent decisions. Up above the question that you have, there is a statement that says there is some suggestions of increases in recruitment in the northern areas.

These are not suggestions. We're seeing zero age class from Maine to Narragansett Bay. These are not suggestions. I've seen them myself. I am a former menhaden purse seiner, former fish boat pilot, former captain for pelagic fish up and down the coast from Maine to Gardner's Bay, New York.

I think our scientists have seen them. These are not suggestions. I don't understand how come we have an increase of zero age class, yet we don't see the adults, but we see them year after year. It seems to be building in our areas more and more, many, many zero age class, so I'm not sure when you say depletion or decline in one area, and there is a robust increase in the northern area. Thank you.

DR. MAHMOUDI: The indices from the northern area that we looked at yesterday were not the long-term time series indices. And for the most of the period, they were pretty flat, the indices, and then the only thing significantly higher levels only in the past two or three years in the time series.

Since we do not have the long-term series that we have for Chesapeake Bay, that's why we are suggesting this may be just only one blip in the time series due to lack of long-term data for that area.

MR. CALOMO: I agree, it is not long-term. I'll say in the past three years, you are correct there. In other years we've seen very little zero age class from, say from the '50s to the '90s or 2000. But in the last three years, you're right, we've seen an abundance of the zero age class, more than I've ever seen, and I've been a third generation fishing captain. Thank you.

CHAIRMAN TRAVELSTEAD: David.

DR. DAVID PIERCE: Those are legitimate questions that, of course we should respond to, but before we do so, I think it would be important for us to get some further guidance from the technical committee. Specifically, I've got two questions that relate to your questions that I'd like answered first before I get into the others.

That is, is the technical committee capable of determining if local depletion has or is occurring in any particular area? And, if the technical committee does have that capability, has local depletion ever been witnessed?

DR. MAHMOUDI: We were going to discuss that in the next few slides.

CHAIRMAN TRAVELSTEAD: Yes, David, that's Item E, and we're going to get into a lot more detail on that issue.

DR. MAHMOUDI: If you don't mind, we could get to it.

CHAIRMAN TRAVELSTEAD: Did you have anything else at this point, David? Okay, we will get to that. George.

MR. GEORGE LAPOINTE: I'm not going to ask a bunch of questions because then we'll get into ping-pong with the technical committee. From my perspective, the latter question is a really important one. I can take the easy dodge and use Jack's approach as saying they're both important.

We've obviously got to be concerned about the long-term spawning stock biomass and work on the localized depletion question as we get information. But, the latter question is the one that I'm most

concerned about.

CHAIRMAN TRAVELSTEAD: So I think what you're saying, George, is we want information on both of those items from the technical committee, if they can produce it? Okay, Matt, a follow-up on that.

DR. CIERI: But, certainly, this is something -- I mean, you guys need to start setting the priorities on where we put most of our effort. When it comes to the impact on the spawning stock biomass, we can do that through the single-species model.

But if you're really concerned about the number of menhaden getting into the Chesapeake Bay, you need to state it up front so that we can work on it rather than spinning our wheels trying to tell you what's going to happen to the stock.

CHAIRMAN TRAVELSTEAD: Okay, Jaime.

DR. GEIGER: Thank you, Mr. Chairman. Is there any data or information available to suggest that we are dealing with either river-specific or bay-specific populations of menhaden or are we looking at a relatively homogenous stock? Thank you.

DR. MAHMOUDI: It's a very good question. Doug, can you help us with that?

DR. VAUGHAN: The Beaufort Lab had conducted, I don't know, starting in the '50s through the '80, 30-40 years of tagging studies with well over a million, several million tagged fish, all of which tends to suggest that there's pretty much one homogenous stock, and there is no "resident Chesapeake Bay stock."

CHAIRMAN TRAVELSTEAD: Okay, Bruce, then Ellen, then Pres.

MR. FREEMAN: To try to address this question, it seems to me that there is sufficient information on long-term basis of the stock coastwide, as Doug had just mentioned, and that certainly is important and needs to continue. But it would appear in order for us to address the issue specific to Chesapeake Bay, we need to concentrate on some more localized issues, whether in fact there is some impediment for larval movement into the bay, whether there is physical impediments or currents or whatever the issue may be.

And it seems that trying to address that issue as a primary focus would be more productive than looking at longer-term trends which we already have.

CHAIRMAN TRAVELSTEAD: That's a good point. Ellen.

MS. ELLEN COSBY: This is addressing a question a couple questions back. When we looked at the juvenile indexes, we have the Maryland index. We have a Virginia index and we have the New England index. They're weighted differently. I don't know if Doug needs to address that or not.

But we talked about how they're weighted and how we might need to readdress this weighting. But, something that is missing is we do not have any seine indices from New York or New Jersey, so that's kind of a hole in the data.

So when we're looking at this increasing northern stock that we're talking about here, the northern areas, we've got information that's missing, so that's why we couldn't make a definitive statement that we were just suggesting that there is an increase. We need more information and more research actually basically from New York and New Jersey about what is going on in those waters.

CHAIRMAN TRAVELSTEAD: Okay, thank you. Matt, on that point.

DR. CIERI: Not to that point, to Bruce's.

CHAIRMAN TRAVELSTEAD: Okay, go ahead.

DR. CIERI: So, Bruce, you were suggesting that we try to concentrate on the localized issues dealing with the Chesapeake Bay?

MR. FREEMAN: Yes, it seems to me that would be most productive.

DR. CIERI: Then can we stop having all these questions dealing with the stock assessment and allow the TC to work on the localized issue of the Chesapeake Bay?

MR. FREEMAN: I would think it would be more productive.

DR. CIERI: Myself as well.

CHAIRMAN TRAVELSTEAD: Let me just stop right there at that point. Is there anyone

who disagrees with that priority around the table? I think what Bruce is saying is focus on the within-season localized depletion issues and let the long-term stock status information slide.

DR. MAHMOUDI: Jack, can I just make one point. I'd like, if you don't mind, defer that until after we discuss the local depletion analysis that we have done, so we have all the information and all the facts.

CHAIRMAN TRAVELSTEAD: Okay, Jaime.

DR. GEIGER: Thank you, Mr. Chairman. Based upon the responses to my questions from the technical committee, it's certainly clear to me that we need to be concerned with both, both localized depletion and long-term impacts. We need to concentrate on both. Thank you very much.

CHAIRMAN TRAVELSTEAD: Pres.

MR. PRESTON PATE JR.: Jack, I was just going to suggest that the board's response to those questions might be better at the end of this entire discussion. We're asking some questions that will possibly be answered with the other presentations by the technical committee as we move on a little bit.

CHAIRMAN TRAVELSTEAD: Just remember sort of where we are at this point, and we'll come back to it on that issue. Alexei.

MR. SHAROV: I just wanted to make a comment on concentrating our efforts on the Chesapeake Bay. I'd certainly support this. I think it's important. The only thing to remember is, though, that Doug Vaughan just explained to you it's a unit stock.

The Chesapeake Bay stock, what we call the Chesapeake Bay stock is actually a mix of fish that repopulate Chesapeake Bay every year, every spring and summer. So, the Chesapeake Bay population is actually a mix of the fish that came from the other areas that they occupied in a previous season, North Carolina waters, Florida waters, New England waters.

There is a constant mix going on in the winter time so it will be very difficult to decouple actually the Chesapeake Bay issue from the coastwide. It's a very dynamic system. But, certainly, I would support to concentrate efforts on the bay, but keep in mind that this is one population.

CHAIRMAN TRAVELSTEAD: Okay, thank you. There was another hand over here that I think I missed. George.

MR. LAPOINTE: Just to follow up on my technical committee member, who is also my staff member has been beating me up as the conversation has gone along. A question for Dr. Mahmoudi that I think will help us.

The localized depletion question, the bay question, are you going to get into how achievable that is in the time frame, because that's important that we're talking about something that we can do as an organization as opposed to not doing.

DR. MAHMOUDI: Yes, I would say let me go to that task and present you a summary of our discussion, and then we can tackle that question.

CHAIRMAN TRAVELSTEAD: Everett.

MR. EVERETT PETRONIO: I know we're going to move on, but when they asked this question, it kind of reminded me of being asked whether or not they want me to file my tax return this year or concerned about retiring. I'm concerned about both.

But I guess what I'd like to hear, as we move on in this discussion, is whether or not the study of localized depletion, based on what we know about the dynamics of the stock, might help us determine some of the status of the stock in other areas.

One of the concerns that I have is that while Vito is correct, we see a ton of small fish in New England right now, we haven't seen adults in a substantial period of time. I would be curious if the technical committee can provide us some guidance as to which of these choices that it appears we need to make could give us some further information for other areas of the coast as well?

DR. MAHMOUDI: Again, can we defer that to after the discussion?

CHAIRMAN TRAVELSTEAD: Lance.

DR. LANCE STEWART: Just to bring up a very important point that Jaime made, it would seem to me to be extremely important to link local depletion trends with primary production, and not only just primary production but what the real food value indices are, especially zooplankton concentrations in the bay, the velligers and having a

low oyster population.

Are these linked? Is the food recruitment factor that's paralleling the decline in the bay? So, you know, not just the fish abundance, but at least some causative factors here, especially primary production.

DR. MAHMOUDI: There is ongoing research at the Chesapeake Bay doing monitoring with ecosystem-based monitoring that is going to be linked to hydrodynamic models. In other words, the hydrodynamic model would generate -- nitrogen loading would generate primary production, would link it bottom-up to the different trophic levels.

And so that would be very interesting to see how basically nitrogen production, primary production, is affecting the larval survival and abundance using that ecosystem trophic dynamic model. I believe that is ongoing and at some point soon would be available to explore that sort of possibility.

CHAIRMAN TRAVELSTEAD: Go ahead, Lance.

DR. STEWART: In regard to just the nutrient concentrations predicted, I'm much more concerned with the spectrum of phytoplankton-zooplankton and the food quality factors, if that's attainable all, if any oceanographic attention to the photic level zone of production and the species composition is as it should be.

DR. MAHMOUDI: Yes, there is an attempt with that modeling to break down the phytoplankton and zooplankton to the functional groups that are representative of the system.

CHAIRMAN TRAVELSTEAD: Okay, unless there are further comments, we're going to move on to Item C. Okay, Behzad.

ITEM C TC REPORT

DR. MAHMOUDI: On this item we were charged to review the stock assessment model, evaluate the issue of inverse catchability, weighting factors for recruitment indices and total mortality and advise the management board on the inclusion of ecological reference point in the model. I'm just going to start with the question of inverse catchability.

And after long discussion on that, the technical committee reached a consensus that this is not an

issue for the current stock assessment model, and the model does not explicitly include inverse catchability. However, it is included implicitly through the catch/age composition data.

So while the model does not explicitly include this inverse catchability question, in other words, it is not external function, another parameter in the model, but using the available catch information, if there is any question about the inverse catchability, that is included in the output of the model.

On the question of weighting factors for recruitment indices, the model is heavily driven by the age composition of the reduction fishery and the weighting scheme of indices has less of an effect on model output and on the reference points.

On the question of total mortality and ecological reference points, in current configurations of the stock assessment model, natural mortality is constant across years and cannot be used to determine changes in total mortality in response to predation.

Predator abundance levels cannot be estimated in the current single-species model and therefore calculation of ecological reference points are not feasible at this stage. This will be addressed, however, in the multi-species VPA analysis after it is peer reviewed. Let's start with inverse catchability, if you have any question regarding it.

CHAIRMAN TRAVELSTEAD: Any questions or comments on this issue? Mark.

ITEM C DISCUSSION

MR. MARK GIBSON: On the forward projection model, it doesn't use any external estimates of fishing effort or fishery catch per unit effort to calibrate the model, does it?

DR. MAHMOUDI: No.

MR. GIBSON: Then I agree there is no issue of including this in it. That would only be appropriate if there were fishery-dependent data being used to tune the forward-projection model.

DR. MAHMOUDI: And that's why we are saying this does not include that explicitly.

CHAIRMAN TRAVELSTEAD: Any other comments on that? All right, seeing none.

DR. MAHMOUDI: So we basically found no issue on the question of inverse catchability in the current stock assessment model. On the question of weighting factors for recruitment and for the recruitment indices, again, the model is mainly driven by age- and-size information can come from the fishery.

And most of that size-and-age information comes from Chesapeake Bay, so the model is heavily influenced by the data from Chesapeake Bay in terms of catch and size-age distribution.

And in terms of effect of recruitment trends and indices, the model is also heavily influenced by the data from Chesapeake Bay since it is weighted heavily toward Chesapeake Bay productivity indices. Question on that?

CHAIRMAN TRAVELSTEAD: Okay, apparently none. Let's go to the next one.

DR. MAHMOUDI: On the question of total mortality, again, in the current configuration of the stock assessment, natural mortality is constant across years and cannot be used to determine changes in total mortality.

We are seeing in this issue that using the multi-species assessment approach, we will be able to calculate total mortality and allow natural mortality to vary as a response to predator abundance.

This is something that we planned to do with the multi-species assessment model and hopefully have it peer reviewed by December. So at the current stock assessment level, that issue is not -- we are not able to address that. But on the multi-species level stock assessment model, we will be able to address that.

CHAIRMAN TRAVELSTEAD: Any comments on this issue? David.

DR. PIERCE: Just a clarification. You say predator abundance level cannot be estimated in the current single-species model. I assume therefore that in the new model, the MSVPA, you're highly confident that you indeed will be able to estimate the predator abundance levels, and then that will lead you into the realm of ecological reference points in terms of giving us some advice as to what might be appropriate ecological reference points?

DR. MAHMOUDI: Yes, and we are saying that under the multi-species assessment model, we will be able to generate MSY, multi-species

maximum sustainable level type reference point. From that MSY, we will be able to calculate total mortality reference point.

And from the total mortality reference point, total mortality equals fishing mortality plus natural mortality. The natural mortality part is a component that the predator abundance level would affect.

So as the predator abundance level changes and those information is included in the multi-species assessment, we will be able to estimate this moving M for natural mortality and therefore adjust the Z as the predator abundance fluctuates and changes through time. That can be only done through the multi-species approach.

CHAIRMAN TRAVELSTEAD: And that will be available in December, you think?

DR. MAHMOUDI: Well, we are planning two or three meetings from now to December. The peer review is in December. That would be the outside peer review of the model. We are hoping, after the peer review of the model, sometime in the spring be able to get into the MSY calculation.

And if the board decides that from the MSY we need to go to some optimum yield calculation, we can do that. And from that we can calculate the total mortality reference point.

CHAIRMAN TRAVELSTEAD: Matt.

DR. CIERI: But to Behzad's point, let's be pretty clear. In order for us to do an MSY calculation specifically for menhaden in the multi-species approach, you guys are going to have to choose your predator levels for each of the species involved.

So you're going to have to choose where you want the ecosystem to be, what you want it to look like, what ratio of striped bass to bluefish to weakfish, then we can go through and do the sensitivity analysis to run the model and see what the appropriate MSY is for all the species involved. But you're going to have to make that allocation decision among the predator species up front.

DR. MAHMOUDI: But we start with the base run, which is the current condition. And then we get advice from the board of what sort of a system they like to operate.

CHAIRMAN TRAVELSTEAD: Okay, Vince and then Tom.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: Thank you, Mr. Chairman. Haven't we already established target levels, say, for example, bluefish, striped bass and weakfish?

DR. CIERI: But it depends on when we do the model runs whether or not those are achievable.

EXECUTIVE DIRECTOR O'SHEA: All right, just to follow up, then, Mr. Chairman. Striped bass are already there, and bluefish we're trying to get to and weakfish, so I guess I don't understand. You're saying if it's achievable to get to those stock levels?

DR. CIERI: If it's achievable to get to those stock levels. When you start using a multi-species approach, you start redefining your reference points not only for your forage species but also for your predator species.

CHAIRMAN TRAVELSTEAD: Very good. Tom.

MR. THOMAS FOTE: I guess that means that we'd have to look at where we want the stocks to rebuild after the model is basically done and compare those levels with each other and basically adjust it to that point. It seems interesting.

CHAIRMAN TRAVELSTEAD: Yes, it's going to get a whole lot different. That's why we need a multi-species committee, I think. Any other comments on this issue? Yes, Mark.

MR. GIBSON: Yes, just to follow up a little bit on what Vince and Matt were exchanging, the targets we have for the major predator species, striped bass, weakfish and bluefish, are single-species calculations.

I think what Matt is getting at is that those may very well change and may come down depending on how high an abundance of menhaden you'd like to have if there is a direct linkage between those or even an indirect linkage between those, the major predators and menhaden.

So it seems to me you would have to have sort of an iterative exchange between the technical committee, once the multi-species VPA is working, and just set as, an example, the first question, what happens to menhaden if we try to achieve MSYs or BMSYs on all of the major predators.

And that gives us an answer on menhaden, and we say, well, that's not very good, and we're going to have to probably go through some iterative exchanges about how we want to balance these all out in the future and what that will look like.

But it may mean that striped bass will exist at lower levels than they have at their maximum point based on the restoration and the other species may do something else. So it will be a long process of exchange, I think -- I don't think this board is going to be able to say this is what our vision of all those four or how many species there are. We're going to have to pose some questions to the technical committee, "what ifs," get some information back, no, we don't really think we like that mix; try something else.

CHAIRMAN TRAVELSTEAD: It will obviously have to be a back-and-forth dialogue, and that's not going to happen over night. But in the meantime, the question for the board is, in my view, are you happy with not pursuing ecological reference points today and are willing to wait until the MSVPA is done? It seems to me it's sort of a no-brainer, but I don't know that you have a choice. But if anybody disagrees with that, speak now.

DR. MAHMOUDI: Well, Jack, if I may, we discussed this a little bit yesterday, too. I mean, the board has really two choices here, to go with modeling and quantitative approach, through the MSVPA, or go the route of non-quantitative, sort of a non-scientific base on this.

And this was one of the questions from the technical committee, that you've got to let us know at this point what direction you want to go. I mean, this is the time to give us that direction.

CHAIRMAN TRAVELSTEAD: Comments on that? David.

DR. PIERCE: For quite a long time now we've been pursuing the MSVPA multi-species management and assessment with menhaden, of course, being the target, so it seems to me that at least implicit in all of that initiative has been the desire for us to eventually get to calculations of ecological reference points.

What are they? What's the implications? What are the implications of those particular reference points, and how do we deal with existing federal law, which is probably going to conflict with our ability to achieve specific ecological reference points, but time

will tell on that.

So, if you're looking for direction, and you are, direction from the board, certainly my view would be that, yes, I certainly would like to see this pursued to the very end, and that is to have the MSVPA applied in such a way that we can find ourselves in a position of evaluating the wisdom and applicability of ecological reference points.

I haven't seen any yet. I'm looking forward to those ideas the technical committee can provide to us. And, of course, it's on the agenda today, at least in part, Letter D, evaluate ecological reference points and recruitment indices for Chesapeake Bay, et cetera, et cetera.

So, yes, please move it forward. I wouldn't want to see us go in any other direction at this point in time. Let's carry it to the very end and then finally make some decisions as a board whether we do indeed want to have ecosystem-based management that would pivot on menhaden.

DR. MAHMOUDI: I just want to also note that these are really sort of uncharted water that we are entering. As Nancy sort of summarized for you, what is done in other institutions and agencies has been non-modeling, non-quantitative approach because of some of this difficulty associated with multi-species modeling and really lack of information in many, many of these regions. But, we are fortunate to have a really strong database to begin this process, but still we are entering uncharted waters. I just want to make sure that's clear.

CHAIRMAN TRAVELSTEAD: Thank you. To the board, is there anyone who disagrees with Dave Pierce's assessment of this or wants to offer a different view? Okay, so I think we have consensus on that. Tom, you had a point.

MR. FOTE: A couple slides ago when we talked about the two questions the technical committee asked the board, this all relates to the two questions.

When we look at ecosystem and where we're going, is that going to get us in the period of time that we need to find out whether there is depletion in the Chesapeake Bay, which might not be produced by this ecosystem model?

I mean, we've got to really decide on the first two questions I think before we do anything else because we've really got to decide. We're being pushed to

look at Chesapeake Bay, the effects on the Chesapeake Bay by a lot of groups, a lot of interested parties, everybody coming down.

And I see if we go down the other road here looking at the eco, it's going to be years before we answer that question so are we going to do a parallel? Are we going to try and look at both at the same time?

Matt asked the question before, and that's my concern here. This is fantastic, and I really would like to know the answers, but I can see there's going to be a long discussion, a long process, and some of us won't even be at the table by the time it's finished.

But there is an ongoing concern right now of what's going on in the Chesapeake Bay. I hear it from congress, when I go testify at every other species. They basically start saying -- you know, Gilchrest asked me, what's going on in my Chesapeake Bay with menhaden. I need to answer some of those questions and I want to have the science to answer those questions in a responsible manner.

DR. MAHMOUDI: We are hoping that hopefully this is not a long-term process. Hopefully, if this MSVPA model is peer reviewed by December, we have much clearer idea of how far we can go with it.

CHAIRMAN TRAVELSTEAD: I think if it is a long-term process, it will not be because the technical committee did not do their job. They're going to be producing the science for us by the end of the year.

If it becomes long-term, it will be because the board is incapable or unwilling to make some of the tough decisions that will have to be made down the road. Tom.

MR. FOTE: Yes, I mean, deciding how you divide it up between striped bass, weakfish, bluefish and all that runs into real discussions where there's going to have to be a lot of work between different technical committees to basically look at the fact. That's what I'm talking about.

I'm not saying everybody is going to drag their feet. It's just I think the coordination and the board trying to make these tough decisions or looking at this information and giving feedback to the technical committee is going to take a very long period of time, and I need answers I guess for some of these things before that.

CHAIRMAN TRAVELSTEAD: Matt.

DR. CIERI: The MSVPA is not going to get at the issue of localized depletion in the Chesapeake Bay. It's just not. The two questions that you're asking are going to be running in parallel. Pretty much the Menhaden Technical Committee can address issues of localized depletion with some outside help.

The MSVPA model is being kicked to an entirely different committee. While there is a lot of overlap in the membership, the current MSVPA model is being run through a stock assessment subcommittee of the super stock assessment committee, so it's in an entirely different committee altogether.

One of the recommendations I believe to this board and to others was to elevate or to change that technical committee to a multi-species technical committee which will handle that model. So they are going to be on two separate groups so we can run completely in parallel in answering these questions. Does that work?

CHAIRMAN TRAVELSTEAD: Lance.

DR. STEWART: Just another observation that I think would be extremely important in looking at these multi-species dependencies, and that I don't see from the Chesapeake Bay specific datasets, are things such as the stomach content analysis.

I mean, it may be a very basic to mention it here, but the other species are primarily pursevoids, the weakfish and the bluefish. Rock fish are omnivores. Much of their diet is often crustacean and other fish that are on the bottom, squid.

And it would seem imperative that Chesapeake Bay groups should assemble some basic stomach content analysis to show the range and dependency as we work towards these models.

CHAIRMAN TRAVELSTEAD: Any other comments on this item? Okay, we're going to move to Item D. Behzad.

ITEM D TC REPORT

DR. MAHMOUDI: Item D involved evaluating ecological reference points and recruitment indices for Chesapeake Bay and advise the management board on the incorporation of Chesapeake Bay values in the stock assessment

model, whether a separate stock assessment model can be developed for Chesapeake Bay.

In terms of incorporating Chesapeake Bay value, the current stock assessment model, as we mentioned, the catch-and-size composition is strongly represented by Chesapeake Bay data. And juvenile and adult indices using the tuned model are primary weighted in Chesapeake Bay. We discussed that before.

The current single-species stock assessment model is using catch-and-size information which is strongly influenced by Chesapeake Bay data, and also juvenile and adult indices are heavily weighted for Chesapeake Bay, so they're well represented in the single-species stock assessment model, the current model.

Whether a separate stock assessment model can be developed for the Chesapeake Bay, we believe that given the lack of information on the stock structure, the whole assumption of closed population in the Chesapeake Bay and the lack of information on a stock exchange rate, the technical committee believes a separate stock assessment model cannot be developed at this stage.

We can do a lot with the coast-wide stock assessment, but we don't believe that a separate stock assessment model can be developed for Chesapeake Bay at this stage. Modeling can be done in theory but the current data doesn't support that. Any questions on this task?

ITEM D DISCUSSION

CHAIRMAN TRAVELSTEAD: David.

DR. PIERCE: If the technical committee has concluded that a separate stock assessment model cannot be developed for Chesapeake Bay, and that apparently is the conclusion, does that then mean that it's impossible for you to calculate ecological reference points for Chesapeake Bay?

That was the first part of the charge, evaluate ecological reference points and recruitment indices for Chesapeake Bay. So, you won't be able to determine ecological reference points for the bay, that's the --

DR. MAHMOUDI: The entire discussion that we discussed on multi-species virtual population or assessment model was based on a coastwide, generating coast-wide MSY, generating coast-wide

optimum yield and generating coast-wide reference points.

And, we believe that those reference points can be used to develop a total allowable catch, sort of a scheme, coastwide, but assign them region specific based on the historical catch distribution.

So that's the route we believe since we cannot do a Chesapeake Bay specific assessment. We can generate for you coast-wide MSY, coast-wide reference points, and from that generate total allowable catch that can be divvied up by region based on historical catch information.

CHAIRMAN TRAVELSTEAD: Other questions or comments? Pete.

MR. W. PETE JENSEN: I guess what I was looking for from the technical committee is not necessarily whether the current data would allow you to do it, but what would be necessary in order to develop a separate stock assessment model for Chesapeake Bay. Are you prepared to answer that question today?

DR. MAHMOUDI: Yes, we have had that discussion and developed a series of research recommendations. But the bottom line is to understand the stock structure, the exchange rate of the resident population with the coast-wide population.

As Alexei mentioned, this tagging data suggests a strong mixing of Chesapeake Bay population with the rest of the coast. So, we have proposed to do direct calculations of the stock in Chesapeake Bay through fishery-independent survey type, extensive tagging study.

There were other research aspects that provide information on the stock structure and exchange rate. Given those data, then we can use various methodology to calculate Chesapeake Bay specific parameters.

MR. JENSEN: Is there a time line associated with getting that data?

DR. MAHMOUDI: Nancy, could you answer that question?

CHAIRMAN TRAVELSTEAD: Vince.

EXECUTIVE DIRECTOR O'SHEA: No, I guess in addition to that, how many years of data

would you need? Pete's question is when are we going to start collecting the data, but before that how many years of data would you need before it would be useable?

DR. MAHMOUDI: Doug and Erik, could you help us with that.

DR. WILLIAMS: I think you would need quite a bit of data because the first thing we'd want to know is what the variability of the influx and efflux of menhaden in the bay is. Because, if that variability is high enough, you may not ever get to a point where you could actually establish any kind of reference point, bay-specific reference point. Because, if the variance is high enough, it will just swamp out your ability to determine such a measure, multi-years.

The other thing to realize is we would need to understand the efflux and influx of menhaden at all ages at all times of the year, so you're talking about a major expense in trying to collect that information. And it seems like the expense that would be required to get that information, it's too cost-prohibitive, in my mind.

CHAIRMAN TRAVELSTEAD: Are the research items that the technical committee identified that came to a cost of about \$2 million a year, are those the things that we need to know in order to produce a Chesapeake Bay model?

DR. MAHMOUDI: Yes, when we designed those research recommendations, they were mainly focused to answer Chesapeake Bay's specific questions.

CHAIRMAN TRAVELSTEAD: So until that level of funding is available, you're really not going to start to get the kind of answers you need; is that correct?

DR. MAHMOUDI: Correct.

CHAIRMAN TRAVELSTEAD: Okay, I would note, I think it was mentioned at the technical committee yesterday that the NOAA's Chesapeake Bay Office has some small amount of funding that they're making available this year and will be soliciting proposals that address some of these issues. But, obviously the amount of funding they have available currently is quite small compared to what will be needed.

DR. MAHMOUDI: That's correct.

CHAIRMAN TRAVELSTEAD: Any other comments or questions on this issue? Mark.

MR. GIBSON: A question, and depending on the answer, maybe a follow-up question. Are the juvenile menhaden indices from Chesapeake Bay, either Maryland's or Virginia's, strongly correlated with the recruitment estimates that come out of the FPM?

DR. MAHMOUDI: Doug.

DR. VAUGHAN: Yes.

MR. GIBSON: Yes, they are, okay.

DR. VAUGHAN: How's that for a good answer, Mark?

MR. GIBSON: Thank you. So that implies that -- okay, and the follow-up question is, is Chesapeake Bay a substantial component of the estuarine area from which juvenile menhaden are produced?

DR. VAUGHAN: Well, historically it was. Whether it has changed in recent years, we don't know.

MR. GIBSON: Okay. Anyways, that strong correlation suggests that Chesapeake Bay is an important producer of menhaden that are recruiting to the stock based on a statistical association.

DR. VAUGHAN: The way we combined the indices was based on a productivity by stream study done from Massachusetts to Florida in the '70s and by estuarine drainage area.

The productivity by stream might have changed considerably since that period of the '70s, so at that time in the '70s, when the menhaden stock was strong and recruitment was good, at that time the productivity was exceptionally high in the bay area. And that weighting is reflected in the way we combine the indices.

MR. GIBSON: So there seems to be some reason why spawning biomass ought to be maintained sufficiently close to Chesapeake Bay in order to continue production of juveniles in that area.

I mean, given that the productivity hasn't changed tremendously, there is a stock recruit argument to be advanced as to why spawning biomass ought to be

maintained in the vicinity of historically high production area for recruitment.

DR. VAUGHAN: I guess it's not clear to me. I mean, we're talking about the spawning stock biomass at the stock level, how it's distributed. I mean, typically the spawning stock ages are found further north than the younger ages during the summer.

MR. GIBSON: But, clearly, we know that if there is no spawners and there's no eggs and larvae that go there, there won't be any juveniles. That's pretty clear.

DR. VAUGHAN: Yes. Well, I'd say the adults are migrating north in the spring, south in the fall, so there is opportunity to spawn along the coast.

CHAIRMAN TRAVELSTEAD: Matt, on that point.

DR. CIERI: To that point. And the converse is kind of true. You could have really good spawning stock biomass right in the vicinity of Chesapeake Bay and still not get recruitment back to the Chesapeake Bay. That's the current condition.

CHAIRMAN TRAVELSTEAD: Any other comments or questions? Were you finished with this item? Were there questions of the board on this item?

DR. MAHMOUDI: There were not many questions. We can move on to the next task.

CHAIRMAN TRAVELSTEAD: All right, we're going to move on.

DR. MAHMOUDI: Actually, there are.

CHAIRMAN TRAVELSTEAD: Oh, okay, we're going to back up for a minute.

DR. MAHMOUDI: Let's go back. All right, so we discussed this one so let's go to the next slide. We discussed the possibility of ecological reference points for Chesapeake Bay, and we believe that ecological reference points can be developed coast-wide, as we discussed, in terms of using total mortality as suggested by Collie, after a successful peer review of the MSVPA scheduled for fall 2005.

It should be recognized that menhaden reference points will be contingent on management decisions for predator involved, what Matt discussed a little

earlier. Management can set ecological reference points without MSVPA, as we suggested, as an allocation issue.

Other important forage species are managed using this approach both in U.S. and outside, as Nancy presented some of the examples on that. So the question we had was, is the board interested in setting reference points based on non-quantitative information? I think we have gone through that.

And is the board trying to increase abundance of zeros and ones in the Bay with the understanding that there may be no relationship between the stock and recruitment -- and that's basically the exchange Mark and Matt had on that. Any further discussion on that?

CHAIRMAN TRAVELSTEAD: Mark.

MR. GIBSON: I think in my view what the board's interested in is maintaining sufficient spawning biomass in the vicinity of Chesapeake Bay so that when conditions which can lead to a good year class production manifests themselves, it will happen.

I'm well aware that high levels of SSB don't always guarantee high juvenile production, but they maximize your probabilities. I think in my view that's what we're trying to do, maintain sufficient spawning stock in the vicinity of all the estuaries that are important to production of juvenile menhaden is high enough so that if and when conditions allow, there will be renewed production of those juveniles.

CHAIRMAN TRAVELSTEAD: So let me ask, does that condition exist today? Do we have that?

DR. CIERI: That's what I was just going to say. Pretty much that's where you are.

CHAIRMAN TRAVELSTEAD: Okay. A.C., did you have a question?

MR. A.C. CARPENTER: To Mark's point, does anybody have a clue how you would try to manage where the stock moves to -- I mean, to hold them off the mouth of the Chesapeake Bay or off the mouth of Delaware Bay or anywhere else along the coast? Am I at a complete loss here?

DR. MAHMOUDI: Go ahead, Matt.

DR. CIERI: I promise I'll shut up. Honestly, that was the discussion yesterday. We just

can't make fish in Chesapeake Bay.

CHAIRMAN TRAVELSTEAD: Mark.

MR. GIBSON: So, Matt, you're saying the spawning biomass now is equivalent to what it was in the '80s and '90s? I'm looking at total biomass plots. I know that's not SSB but total stock biomass is on the order of 750 level versus in excess of 1,200-1,300 a decade ago. Is that the case with SSB?

DR. CIERI: Try the fecundity estimates available in the stock assessment report.

DR. MAHMOUDI: Those are total biomass.

MR. GIBSON: I understand that but is SSB the same level now as it was a decade ago when total biomass was at a recent maximum?

DR. CIERI: I don't have the figures off the top of my head.

DR. MAHMOUDI: Let me ask Doug to answer.

DR. CIERI: Doug definitely has.

DR. VAUGHAN: The spawning stock biomass and the egg production which is primarily three-plus, as that includes a proportion of the twos, has been increasing and is higher than it was a decade ago.

DR. MAHMOUDI: And as to lower fishing mortality.

DR. VAUGHAN: Whereas, total biomass includes those that are immature, ones and twos, and the ones are definitely low.

CHAIRMAN TRAVELSTEAD: Okay, other comments? Mark, are you straight on that? Do you have any follow up?

MR. GIBSON: I don't have any comments at this time.

CHAIRMAN TRAVELSTEAD: Alexei.

MR. SHAROV: I just want to comment on Mark's discussion on the spawning stock biomass. The problem that we're having is that there is just a general knowledge, a general perception of when the spawning occurs and where the larvae -- the general

knowledge is that the fish from all over the coast migrate down south to south of the Cape Hatteras during the fall time. They over-winter there and then begin their northward migration.

The general knowledge is that the fish spawn near the Chesapeake Bay somewhere in the period of, say, February or March. Those are most likely the larvae that will be brought into the Chesapeake Bay.

The perception is that the adult fish, the spawners, they move northward; and as they move, they spawn. And it's a mixed spawning stock, so that at this point we have no clue as to whether it's a complete mix of fish that are reaching there from all different areas or there is still a higher percentage of the fish originating from the Chesapeake Bay.

It's not clear, so that the spawning stock that actually produces recruitment for the Chesapeake Bay is not known. It's a part of the overall spawning stock population, but we could only guess as to what it is. That's part of the problem.

If you would presume that there is a complete mix of the fish during the over-wintering time and then they start migrating northward, then it appears that there is no problem with the spawning stock.

If there is some segregation, if there is some structure within the spawning stock, there might be a problem, but that's not known.

CHAIRMAN TRAVELSTEAD: Jaime and then George.

DR. GEIGER: Thank you, Mr. Chairman. I'm a little confused. I would like the repeat of the question, has spawning stock biomass in the Chesapeake Bay, is it less, equal or more than the previous historical record, paraphrasing Mark's question. Can we have a clear answer to that, if possible? Thank you.

CHAIRMAN TRAVELSTEAD: Doug.

DR. VAUGHAN: I can only answer that question from a one-stock, coast-wide perspective. I cannot say anything about the Chesapeake Bay because we have no data. But, the coast-wide spawning stock biomass has increased over the last decade. And the tagging evidence, as I said, suggests that it's one stock.

CHAIRMAN TRAVELSTEAD: George.

MR. LAPOINTE: My question, Mr. Chairman, addressing Question Number 2 to the technical committee I think and related to the broader question, we could, from what I understand, reduce or eliminate fishing in Chesapeake Bay and not fundamentally impact the abundance, the production of zeros and ones in Chesapeake Bay?

I guess my question is could we substantially reduce or eliminate fishing and it wouldn't -- given the disconnect, we might not have an impact on the abundance of smaller fish in Chesapeake Bay? That's my question.

DR. MAHMOUDI: Doug and Erik.

DR. WILLIAMS: I would say that you most certainly wouldn't have any impact on the age zeros and ones in the bay.

MR. LAPOINTE: I think that's pretty important in the context of this discussion.

CHAIRMAN TRAVELSTEAD: Alexei, on that point.

MR. SHAROV: Well, I would disagree with Erik. That's his view, but I think that probably more objective answer should be that we don't know. You could model -- I mean, you could try to model this process, but there is no guarantee that your modeling results are the true results.

And the only test that you could do -- I mean, the only way that you could actually know this is by doing it, and that's a very difficult story, of course. I don't think that this is such a definite answer as Erik perceives.

CHAIRMAN TRAVELSTEAD: Erik, do you have any follow up?

DR. WILLIAMS: Sure. The tagging data suggests that this is one stock. It's one of the most extensive tagging studies ever done in the history of fisheries, in my mind. I don't believe you can say that there is any relationship of any segment of the spawning stock biomass that is returning recruits to Chesapeake Bay, so there is no clear link.

It is a random process, as the tagging studies suggest, so there is no indication that there would be any increase in recruitment or larvae entering the bay by a moratorium on the commercial fishery.

CHAIRMAN TRAVELSTEAD: I had Pete

and then Neils.

MR. JENSEN: I need a little clarification of your Question Number 1. I don't know that I understand the context of that question, but can you give me an example of a non-quantitative reference point.

DR. CIERI: Picking a number out of a hat.

MR. JENSEN: Pardon?

DR. CIERI: Picking a number out of a hat, an arbitrary number, the idea that you want to set something without any quantitative basis behind it as an allocation issue.

MR. JENSEN: Okay, so a number would be quantitative, but in this case it would be a random pick as to what that number is; is that what you're saying?

DR. CIERI: Yes.

DR. MAHMOUDI: And as an example, it would be total allowable catch based on the last five years of catch level in the bay.

CHAIRMAN TRAVELSTEAD: Neils.

MR. MOORE: Thank you, Mr. Chairman. This question is directed toward Matt, and it's in regards to the relative effects of various types of mortality within the bay on age zeros and ones. And my question for Matt is how does the level of predation on age zeros and ones, according to the MSVPA, compare to the level of harvest for those same age classes? Thank you.

DR. CIERI: I can't answer that specifically for the bay. Right now the model has return results that natural mortality processes far exceed fishing mortality processes on a coast-wide basis for age zeros and ones.

CHAIRMAN TRAVELSTEAD: Alexei.

MR. SHAROV: I wanted to provide one example to Pete's question about the non-quantitative reference points. It could be a variety, but essentially what you do is you use your empirical data when you cannot actually estimate the stock size or calculate the equilibrium reference points.

You could, for example, choose a period when you believe that the ecosystem and the status of specific

populations — and we're speaking about menhaden now — was good and you would want to see it in the bay or coastwide at this level.

For example, you could say, well, we believe that the recruitment index that we've seen in the bay in the '70s and '80s is the good one, and that's the reference point, that's where we would like to keep the population.

Of course, the difficult task is to how you get there. That's an issue separate, but that's a reference point. You could also choose an index of relative index of abundance of the adult population.

You could choose a number of points that would be just simple measurements of the population either in the bay or coastwide. That would be your empirical reference points.

CHAIRMAN TRAVELSTEAD: On that point, Matt.

DR. CIERI: Just so that everyone knows and so everyone is aware, if you set those numbers based on some sort of index or some sort of qualitative analysis, that you're really not going to be setting an ecosystem reference point because, of course, you're not accounting for striped bass predation, changes in predator growth, changes in predator composition, those types of things. It's not going to be an ecosystem-based reference point is what I'm saying.

DR. MAHMOUDI: Not explicitly. It could be done implicitly.

CHAIRMAN TRAVELSTEAD: David, then Mark.

DR. PIERCE: Regarding the second question, which is an important one — it's certainly relevant to much of today's discussion and comments from the audience this morning -- is the board trying to increase abundance of zeros and ones in the bay?

Well, I suppose the first question for us to ask, and in response before answering that question, a question to ask the technical committee is what are the biological benefits from increasing or maintaining the abundance of zeros and ones in the bay?

What are the socio-economic benefits as well from doing that? I assume that we have nothing in our plan, as it stands right now, that would address this specific question, the desirability of increasing or

maintaining abundance of zeros and ones in the bay. I'd like that question answered, what are the biological benefits of doing so and the socio-economic benefits?

In addition, I'm reminded by Ken Hinman in his letter, the National Coalition for Marine Conservation, that NOAA Chesapeake Bay Program does have a new fishery ecosystem plan. I haven't seen it. Maybe I have and I've forgotten.

But, anyways, I would wonder, since clearly we have another group that's involved in the Chesapeake Bay relative to its health, fisheries within, use of fisheries within, what does that particular program have within it that would help us get a better understanding as to whether or not there are some benefits of increasing or maintaining that abundance of zeros and ones.

And if they've already addressed it, then that might help give us some guidance as to how we should proceed. So, again, those are my questions relative to do we know the benefits of increasing and maintaining abundance of zeros and ones so that would provide us with something we can use to make a decision about what we need to do relative to that?

DR. MAHMOUDI: Those are basically your comments that we'd like to know what are you basically concerned about, so we can take that back to the technical committee and discuss those. In terms of Age 0 and 1, I'm going to ask Erik to respond on that and then we can go to the other issues. Go ahead, Erik.

DR. WILLIAMS: I need a clarification. I phoned out there a little bit, I apologize. What exactly is the question, again?

DR. PIERCE: Right, has the technical committee already addressed the question of what are the biological benefits of having increased or for that matter maintaining abundance of the Age zeros and the ones in the Chesapeake Bay?

DR. WILLIAMS: I don't know how to answer that, I mean, other than I can state what the situation is now which, is that zeros and ones are at probably an all-time low in Chesapeake Bay according to the indices we have in hand.

The thing we don't know is what is the cause of that. So if we don't know the cause, then we can't say what the benefit would be if we ever could recover that zeros and one levels in the bay, because we don't really know the cause, first off. I don't know how

else to answer that.

DR. PIERCE: I guess it gets to my concern about the ecology of Chesapeake Bay, and I would think a lot of work has been done already on the ecology of Chesapeake Bay and the importance of menhaden to Chesapeake Bay.

So if indeed that kind of description has been done, that kind of research has occurred, then I would think that somebody has some understanding of the value, the ecological value of having an abundance of Age zeros and Age ones in the bay.

I'm not forgetting the fact that there may be no relationship between stock and recruits in the bay, but once we get those Age zeros and ones back in the bay, for whatever reason, maybe the environment turns positive for us, the larval transport is successful; and once they're back in the bay, what should be done by ASMFC, by this board, to maintain that abundance if there is some ecological benefit.

Again, we're talking about ecological reference points, and to me that screams ecology and ecological relationships, predator-prey relationships. I would like to have that question answered in some way before I'll be in a position to make some judgment regarding increasing or maintaining abundance of zeros or ones in the bay.

I mean, I'm unfamiliar with Chesapeake Bay. I'm from Massachusetts. I know there are many people around this table who are intimately aware of Chesapeake Bay research having gone on for decades, so, if you would.

DR. MAHMOUDI: Again, Dave, I think we discussed that a little bit earlier. Using the MSVPA coast-wide modeling approach, we can explore and investigate various level of increases of zeros and ones coastwide and quantify on the values the strategy, the impact of increasing, but also it needs to be done under the MSVPA coast-wide modeling approach.

CHAIRMAN TRAVELSTEAD: Erik.

DR. WILLIAMS: The other thing to keep in mind is the evidence we have in hand is a measurement of the Age 0 fish, which is what we call Age 0 is six months old or so, so we're measuring them at that point so the reduced abundance of Age zeros is Age 6 month menhaden.

That's not to say that the amount of larvae being

invested into the bay has changed at all. We don't know that. We have no idea what has happened to that process.

We have no data on that, and that's why I say we need to know the cause of this reduction in Age zeros and ones to understand if there are any biological benefits to increasing Age zeros and ones.

Because, we may find out -- and this is truly hypothetical -- that the larvae influx has not changed at all and that the lack of zeros and ones in the bay is due to predation. So if you want to increase zeros and ones, then you've got to cut back your predators.

CHAIRMAN TRAVELSTEAD: I have Mark, Tom, Bruce and Neils, in that order.

MR. GIBSON: Thanks, Mr. Chairman. Do menhaden spawn in Chesapeake Bay or are the zeros that recruit there derived from larvae spawned from an external source of spawners? I don't know who to direct it to, somebody from the technical.

DR. MAHMOUDI: Mark, could you repeat that again.

MR. GIBSON: Yes, do menhaden spawn in Chesapeake Bay or are the recruits produced in Chesapeake Bay derived from larvae from external spawning that are transported there?

DR. MAHMOUDI: The answer I believe is yes.

MR. GIBSON: These fish do spawn in Chesapeake Bay?

CHAIRMAN TRAVELSTEAD: No.

DR. MAHMOUDI: No, no, the fact they are transported from outside.

CHAIRMAN TRAVELSTEAD: Bruce.

MR. FREEMAN: Thank you. It seems to me to answer the second question, we need to know a little bit more about what impacts would occur if we could control the abundance. Let me give you an example.

If in fact you're asking us do we really want to control the abundance and we need to know, well, if we could control the abundance, would it have a minimal impact or a major impact.

And, again, dealing with menhaden, you deal with such large numbers of individuals, both spawning stock and juveniles and even relatively large or older ages, you're talking almost billions of fish.

The issue is if we're looking to control it, will that control have any appreciable impact on what occurs in the bay from a biological or ecological standpoint? I think the issue is if there's fish in the bay now, what we understand is most of them are being cropped off at a relatively high rate because it is a forage fish.

In addition to that, we have a fishery, a commercial fishery that's taking large numbers. Are the numbers that commercial fishery taking have a substantial impact on the forage base or doesn't it? That's really the issue we're looking for, at least in my mind.

CHAIRMAN TRAVELSTEAD: Speak up, Bruce, they're having a hard time hearing you.

MR. FREEMAN: So, getting back to this last item here, from my standpoint, I would need to have some indication of what impact we would have if we could control the zeros and ones. Is it a relatively major amount or is it a relatively minor amount compared to what's in the bay?

DR. MAHMOUDI: As I mentioned, I think now we have a tool with the multi-species assessment model that we can quantify the impact of fishing while we can quantify the impact of predation of various size classes of menhaden.

So we should be able to at least look at the magnitude of change under various management strategies, in this case increasing Age zeros and ones, so we can probably quantify that, what sort of an impact that may have.

CHAIRMAN TRAVELSTEAD: Neils and then Steve.

MR. MOORE: Thank you, Mr. Chairman. While there are questions regarding what is affecting the Age zeros and Age ones, both in the bay and coastwide, I think it's very clear there is definitive evidence, based on the MSVPA model, of what is not affecting Age zeros and ones.

Based on the estimates of the MSVPA model right now, for every one forage-sized menhaden, Age 0 and 1, for every one of those fish that is harvested by industry, 1,200 are consumed by predators, predominantly striped bass, or die to a lesser degree of other forms of natural mortality.

So, when we start talking about regulatory solutions to increasing the numbers of zeros and ones, both coastwide and in the bay, clearly, industry is not responsible for any sort of decrease in those numbers. Thank you.

CHAIRMAN TRAVELSTEAD: Steve.

MR. STEVE MEYERS: Good morning, Mr. Chairman. I'd just like to let my colleague from Massachusetts know that I'm going to be mailing him a copy of this Chesapeake Bay ecological approach planning document as soon as I get back to the office, and thank him for bringing to the table the word "ecology."

I have in front of me a paper from August 2004 estuaries, Hypoxia in Chesapeake Bay, 1950-2001, Long-Term Change in Relation to Nutrient Loading and River Flow. There is also a study that's out that indicates that as far as a particular striped bass goes, that one month in summer of 2003, that about 84 percent of Chesapeake Bay would have been just a bad place to be.

I think that in addition to the paradigm of fisheries biology that we bring to the table in terms of predator-prey relationships and the like, we also need to be thinking about fisheries ecology, about the biology of the fish and how it relates to the environment in our discussions here as to the future of these resources. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you, Steve. Pete.

MR. JENSEN: I'm having a little trouble putting some things together here. I think we've heard that the Chesapeake Bay data is integral and heavily weighted in the model. I think we've heard that the spawning stock biomass is increasing on the coast.

We also know that zeros in the bay are at a low level for the past ten years. Are we to draw from that a conclusion that reproduction in the bay has absolutely no consequences for the coastal stock?

DR. MAHMOUDI: Go ahead, Matt.

DR. CIERI: I'm going to defer this one to Erik.

DR. SMITH: Joe Smith, National Marine Fisheries Service, Beaufort. I think the consequences

for the coast-wide stock, when you look at good reproduction years in the bay, good recruitment years in the bay for menhaden, the '70's and '80s, consecutive good years, above average recruitment, you see a robustness in the coast-wide stock; hence, you have commercial purse seine fisheries for menhaden in Southern New England, in the Gulf of Maine.

I think as witness to this, the last real good year class we had out of the bay was the '88 year class. That fed the IWP Russian Soviet joint venture up in the Gulf of Maine until those fish phased out of the fishery as Age 5 fish.

And in '93 those fish were pretty much gone and that was the end of the Russian venture. So the bay is sort of like a breadbasket, and indeed we do put a lot of weight on the bay in developing the recruitment indices.

CHAIRMAN TRAVELSTEAD: Brian.

MR. CHEUVRONT: Yes, Brian Cheuvront from North Carolina Marine Fisheries. The question I believe that was asked earlier was not just about the biological benefits of increasing zeros and ones in the bay, but there was also questions about the socio-economic impacts of doing so.

I just wanted to state that we could theoretically come up with some of those socio-economic impacts if we could increase the zeros and ones in the bay. I think we know that the commercial reduction fishery is landing primarily two-plus fish, so the impacts would be largely socially to recreational fishing interests as well as to the economy of the interests that support them. But it is possible, actually, to hypothesize potentially what those impacts would be.

CHAIRMAN TRAVELSTEAD: Thank you. Alexei.

MR. SHAROV: I just wanted to add one more comment on the issue of the effect of the Age 0 and ones recruitment in the bay, the effect of it on the coast-wide spawning stock biomass. For those of you who have seen the plot of the juvenile index in the Chesapeake Bay, you know that it looks really scary for the last 10 to 15 years. It's very low and flat.

And had there been a single, separate Chesapeake Bay menhaden stock, it would have collapsed by now for sure. The Chesapeake Bay population, the complex of fish that occupy Chesapeake Bay every

season, is getting more and more dependent on the fish originating from other areas but used in the other areas.

So consequently, for example, in the assessment model we've estimated that on average 80 percent of the recruits coastwide are being produced in the bay. We gave them 0.8 weight to the Chesapeake Bay index.

So if the Chesapeake Bay index goes downhill and it's really low, it definitely has a significant impact on the coast-wide population. That means that you have very low numbers of zeros contributing to the coast-wide population, which become Age 1, which are being subjected to significant increased predation, which in turn, once they turn into Age 2s and 3s, are being subjected to significant fishery.

So, obviously, there is a negative effect of the poor recruitment in the Chesapeake Bay. According to the assessment, we do have high levels of the spawning stock biomass. I wouldn't say probably that it's been increasing the last ten years, but there were two high peaks. There was quite a lot of fluctuation.

But in a historical prospective, as it comes out of the model, it's high. But yet it's a spawning stock biomass, it's not the numbers of fish. If you look at the numbers of the adult fish, they're not as high. They're actually going down.

The compensation here comes from the significant increase in mean weight fish at age. That's why the spawning stock biomass appears to be still at the high level, but the numbers are fish are not that exciting.

CHAIRMAN TRAVELSTEAD: Matt.

DR. CIERI: Just quickly, as everyone realizes, the fecundity and the reference points are based on weight, not on individual fish. So while the number of individual fish might have gone down, like any other species, the number of bigger, larger fish, the weight has increased. So, the overall reproductive capability has increased, or it's actually right about at average.

CHAIRMAN TRAVELSTEAD: Mark.

MR. GIBSON: Thank you. I'll just put the third chapter on that. I think both Alexei and Matt are right, but with continuing flat recruitment in Chesapeake Bay and the failure to replace those numbers, the numbers decline that Alexei spoke to will continue and eventually the fish won't be able to compensate any further by increases in maximum

weight. They can only increase their size to whatever their theoretical maximum is, and your SSB will fall eventually.

DR. MAHMOUDI: And just to add that we made that point very clearly regarding Task 2, that the technical committee reached its conclusion that given reduced recruitment of menhaden in the Chesapeake Bay due to changing environment factors, we couldn't put weight on, there may be an impact on the future spawning stock biomass. But the question was, if not compensated by other areas. That's really important.

CHAIRMAN TRAVELSTEAD: Vito.

MR. CALOMO: Thank you, Mr. Chairman. Not being of the scientific world and a layman and a fisherman at one time, I'd like to ask this question. Is it possible that with the increased amounts of pollution in the bay, the runoffs from upland, the dead zones in the bay, the increase of predators, probably one of the highest of all times, would it support more menhaden in the bay?

Or, is that the reason why more menhaden are not going in the bay? Is it also a possibility that the fish know that there is a problem in the bay, and there's less of them going in the bay and entering other estuaries and oceans, doing more breeding outside the ocean? I mean, they're not dumb. They're pretty smart fish. Thank you.

CHAIRMAN TRAVELSTEAD: Erik, do you want to respond to that?

DR. WILLIAMS: Sure. The answer is we just simply don't know. That's the area that we have absolutely no information on is what is the cause of the reduced Age 0 recruitment in the bay.

MR. CALOMO: Back in the '60s and '70s, when I fished menhaden, when there was a tremendous die-off because of a lack of oxygen in areas, we would read in the commercial fisheries news and other newspapers from the southern areas of these large amounts of menhaden just dying off, and they called it "lack of oxygen."

Again, I'm not from the science world. I've also seen in my time when there is a large die-off, such as was in the Narragansett Bay at times, up in my area in Massachusetts at times, you would not see fish return there for many, many years. I'm talking more than 10 years.

I'm a third-generation fisherman myself. I was born into the menhaden business back in the '50s, and this I've seen with my eyes. I know they do not return to certain estuaries when there is a large die-off, so there is a problem.

I'm not so sure it's because of pressures from the humans on fishing. I think it's pressures from us, that we've polluted so bad in certain areas that they just don't come back into them areas.

And recently in another commercial fisheries news, I've seen another large die-off within a year or two ago, and there was no reason or rhyme to it other than lack of oxygen. I think it was in the bay. Thank you.

CHAIRMAN TRAVELSTEAD: Erik, you want to respond? Go ahead.

DR. WILLIAMS: I don't disagree with you. The bay has clearly entered a new regime, call it a "cesspool regime", if you want. But, clearly, the bay has changed and it may be that that is exactly what is going on, but we don't know.

The question is what do we know? And being a scientist, we have to be objective about this and we can't pin it on any one cause right now, because we don't have the information to do that. But, clearly, something is going on in the bay.

MR. CALOMO: One thing we — do you mind, Mr. Chairman?

CHAIRMAN TRAVELSTEAD: Go ahead.

MR. CALOMO: One thing we do know, because we can understand it more on the land than in the ocean, is that when there is a problem with the environment on the land, the animals disappear. That we do know. We can see.

We can study a lot easier than what happens in the ocean because of the depths of the water when the fish disappear, because we don't know where they go half the time. But we have seen that on the land. Thank you very much for your answer.

DR. MAHMOUDI: Mr. Chairman, just one quick note. Also, we do know, when we look at this long-time series of juvenile abundance in Chesapeake Bay, we have seen a period of low abundance in the past. So this long-term time series shows these up and down through the history of the Chesapeake Bay menhaden abundance.

CHAIRMAN TRAVELSTEAD: Neils, you had a comment?

MR. MOORE: Thank you, Mr. Chairman. The issue of degrading water quality is an intriguing one. We heard testimony earlier today during public comment from fishermen in both Virginia and Maryland, and as I recall, one of those sport fishermen I believe from Maryland testified to the effect that there is a shortage of menhaden up his way in Maryland yet there are lots of them down in Virginia Beach.

And so, you know, in speaking with Steve Meyers yesterday, he was nice enough to share this article with me. It's very possible, as far as I can see, that it's not a question so much of do these menhaden exist as to perhaps are they just not swimming up in the Maryland waters.

And per Steve's article that he shared with me, recent studies indicate that a combination of high water temperature and low dissolved oxygen levels in the bay are creating this temperature dissolved oxygen squeeze in 84 percent, as most recently measured, 84 percent of the waters in the bay.

And this condition apparently is one that striped bass don't like, and it causes stress. I'm going to have to assume that similar fish species, clupeids, in this instance like menhaden, would also not like this, so it could very well be that they do exist, they have been spawned, they have not been eaten, but they're simply just not being caught in the seines in Maryland because they don't want to go up there. The water is not to their liking. Thank you.

CHAIRMAN TRAVELSTEAD: Okay, I think we've had pretty good discussion on this item. We're about ready to go to the next one. I did notice a couple of hands in the audience and I'm going to call on you.

Please keep your remarks brief, and just note that the most important thing that we're trying to accomplish here today is the dialogue between the management board and the technical committee.

We don't often get this opportunity, and that's really what we're trying to focus on here today. But, Rich, if you want to come on up, just be as brief and to the point as you can.

MR. RICHARD NOVOTNY: My name is Rich Novotny. I'm executive director of the Maryland Saltwater Sports Fishermen's Association.

This is a very concerning subject for all Maryland fishermen.

Jack, if you would permit me, I'd like to have all the Maryland fishermen stand up because there's quite a few here that would like to be recognized and know that there is a real problem here in the Chesapeake Bay dealing with menhaden. Could you do that for me, please?

CHAIRMAN TRAVELSTEAD: Sure, they stood up while you were speaking. Very good.

MR. NOVOTNY: I'd kind of like to be here as an expert witness because I've fished the bay for 30 years. I even wrote a book on catching rockfish. I've charter boat captained for the last 20-some years, so I've seen over the years what has happened.

Within the last five years there has been a real depletion of menhaden in the Chesapeake Bay, especially towards the upper bay, and there is great concern because not only are they a food source but they're a filter feeder.

And although I'm not a scientist, I realize that when we had plenty of alewives in the bay, we didn't have the dead zones like we're having at this time. I feel as though that's because of the lack of menhaden being in the bay.

So, the menhaden really do serve two purposes for the bay, first it's for the predator fish, it's food. And, secondly, it's a filter feeder which takes some of the nitrogen and other harmful elements out of the bay, so we feel as though we're only asking you to do what we would like to see.

We don't want to put Omega Protein out of business. All we're asking is just for them to move out of the bay and into the EEZ, and 13 other states have done that already. And we're just asking for this board to help us out and move the Omega Protein fleet out of the Chesapeake Bay, let more fish come in here, let more fish clean the bay up, and let our rockfish and bluefish have something to feed on. Thank you very much.

CHAIRMAN TRAVELSTEAD: Thank you, Rich. Jim, Mr. Price. Right after you speak, we're going to move to the next agenda item.

MR. PRICE: Thank you, Jack. I'd like to make a comment briefly. Erik just mentioned that the problem is clearly in the bay. Well, I want to clarify that I hope you didn't mean that was the

reason for poor recruitment.

I mean, we have problems in the bay but I wanted to mention that. But the other thing is the comments about the spawning stock biomass being lesser in number and greater in weight. That's true. I understand the assessment.

But what wasn't pointed out is that as this happens, as the number of menhaden decline in number and increase in weight, you maintain the spawning stock biomass on paper, but there is less fish along the coast, which means that there is less opportunity for these fish to spawn over a long range and distribute their eggs to increase the chances of good spawning and good recruitment.

This is extremely important. I've never heard anyone on the technical committee or anywhere discuss this. We learned this with striped bass years ago. The other thing is I wanted to point out that I neglected to remind or talk about the ten indicators that I passed out this morning.

Those are very important because if this committee or this board is going to listen to the committee and try to come up with recommendations to improve the way we manage menhaden, you've got an impossible task, and I understand that.

When you're told the spawning stock biomass is healthy, what could you possibly do? But if you look at those ten indicators, they are taken from the assessment. They overwhelmingly point that there is not a healthy spawning stock biomass.

The assessment makes assumptions using a model based on the best scientific data that goes in their model they assume that that spawning stock biomass exists. I'm taking data, empirical data from the assessment pointing out its overwhelmingly logical that that spawning stock does not exist, and I'll challenge the board and the technical committee to try to find out or list ten reasons to prove that it does exist. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you. Let's move, Behzad, now to Item E.

MR. MOORE: Mr. Chairman.

CHAIRMAN TRAVELSTEAD: Yes, Neils.

MR. MOORE: Thank you. If I could just respond to the first speaker's remarks. Mr. Novotni

apparently suggests that depletion of menhaden is occurring in the bay, particularly in the upper bay.

I just have a question for Doug Vaughan. Doug, what was the total harvest of menhaden by the purse seine fleet in the upper bay in the most recent year?

DR. VAUGHAN: I'll take that as a rhetorical question that it is, obviously. As far as the reduction fleet is concerned, it's zero.

MR. MOORE: I'm asking the entire purse seine, both reduction and bait fisheries.

DR. VAUGHAN: Well, yes, the purse seine fleet, both the snapper fleet and the reduction fleet are strictly in the Virginia waters and outside.

CHAIRMAN TRAVELSTEAD: Okay, Behzad.

ITEM E TC REPORT

DR. MAHMOUDI: Moving on to Task 5, advise the management board if localized depletion of menhaden stock at Chesapeake Bay is occurring or likely to occur under current management of the coast-wide stock of menhaden.

We basically divide that to two categories, concern about Age 0 as it relates to local depletion. And there is a concern about the localized depletion of Age zeros in the Chesapeake Bay as is evident by the transient juvenile abundance indices.

And this localized depletion is on a long-term scale -- you have to note that -- which is from year to year and is driven by reduced recruitment and possible increased predation. We noted that from the catch-at-age data and assessment results, that fishery removal on this age class in Chesapeake Bay is not a potential cause for depletion.

For the Age 1 and older, there is a lack of reliable data to determine if there is localized depletion within season for all ages and annually for Ages 1, so we have really no scientific data to support that.

There is currently no apparent link between number of Age 2s and 3s resident menhaden and following recruitment to the bay. We had also discussion as to what is the board's definition of local depletion, if it's sort of draw the conclusion that board is really interested in Age zeros and ones and as it relates to local depletion.

So, we sort of raised this question that the technical committee has assumed local depletion as a Chesapeake Bay-wide scale, and is this the correct spatial scale for the board management needs. So we sort of want a little direction from the board in terms of the local depletion question in general and what specific objective they'd like to charge us with.

ITEM E DISCUSSION

CHAIRMAN TRAVELSTEAD: Questions or comments on this issue? Neils.

MR. MOORE: Behzad, could you please put up the first slide. I'm sorry. It went by so fast, I didn't get to read it. Thank you.

CHAIRMAN TRAVELSTEAD: Questions or comments? Neils.

MR. MOORE: Yesterday in attending the technical committee meeting, it was my understanding that one of the conclusions of the technical committee was that striped bass were potentially causing localized depletion of Age zeros in the Chesapeake Bay. I recall that as being one of the conclusions of the technical committee, yet I don't see it here today.

DR. MAHMOUDI: You do not see that today. On the second paragraph we mentioned that - well, on the first paragraph we basically believe that these year-to-year changes in abundance which is driven by reduced recruitment and possible increase in predation, so we sort of -- all those factors that we discussed in the first reason for the low recruitment of the menhaden, and we focus on the question of predation and also concluded that from the assessment result and catch-at-age data, that the impact of fishery on Age zeros as it relates to local depletion was not a concern.

CHAIRMAN TRAVELSTEAD: Alexei.

MR. SHAROV: An additional comment to the striped bass predation of Age 0 in the Chesapeake Bay. The existing studies indicate that the Age 0 menhaden shows up in striped bass stomachs at the age of 6-7-8 months, that is, August-September-October, and then they are gone from the bay.

So, by the time they -- when they reach the size that they're being harvested by striped bass, at that moment essentially we measure the index of the Age

0. And it is already low at this point, so if it's a predation, it's likely a predation by something else, not the striped bass.

Whatever it is, the point being is that the Age 0 index is already low when they're six months old. I am not aware of any striped bass foraging studies that show menhaden of smaller sizes in the striped bass stomachs in Chesapeake Bay.

CHAIRMAN TRAVELSTEAD: Erik.

DR. WILLIAMS: I will say that there is actually data on that. John Walter's study does show menhaden as small as Age 0 in striped bass that are Age 6-plus, so they do occur. The frequently may be low but they do occur.

MR. SHAROV: Well, if I could comment on this, I do have this data. There are no fish less than 120 millimeters that were observed, and that is about five inches. That is the size of the fish approximately when they're six or seven months old in the months of August. That does not contradict what I said.

CHAIRMAN TRAVELSTEAD: Any other comments or questions? We'll just keep moving on through the agenda. All right, Behzad, go ahead. Pete, sorry.

MR. JENSEN: Thank you, Mr. Chairman. I don't know what slide I want to look at there. There was a slide that had the term -- there it is right there - -- "resident menhaden." What is the definition of resident menhaden if that's not a population?

DR. MAHMOUDI: Go ahead, Matt.

DR. CIERI: Hanging out in Chesapeake Bay.

MR. JENSEN: So that doesn't have much technical definition behind it, then.

DR. CIERI: You could call them "tourist fish."

CHAIRMAN TRAVELSTEAD: All right, are we ready to move to the next one? Go ahead.

ITEM F TC REPORT

DR. MAHMOUDI: I just want to make this point. Is the board comfortable with our definition of

local depletion in terms of Age zeros and ones? Is there any other concern or definition for local depletion that we need to think about? Apparently not.

The next task was to evaluate whether the effect of time and space opening, closure of fishing harvest, caps in Chesapeake Bay and coastwide can be modeled, measured or monitored well enough to be considered as a management tool.

Our multi-species VPA model can be used to develop a coast-wide multi-species MSY level. From that we potentially can generate optimum yield measure, decided by the management board, and from that generate area-specific TACs which can be derived from historical catch information.

This MSY cannot be generated from the existing single-species model. This has to be based on a multi-species approach. Setting an optimum yield coastwide that can be taken from a smaller geographical area is extremely risk-prone. Likewise, setting a specific catch cap for a particular area and not for other areas is also risk prone.

We, and especially Matt, have a series of questions for the board and those included -- this is specifically for the reduction fishery, the TAC.

Is this to solve a perceived biological need? What do you do with the pound net and the snapper rig fisheries? Is setting an overall TAC by area or coastwide? What type of a TAC do they want, hard, soft or payback type? And who is going to monitor and cost associated with that?

So those were pretty much specific questions that we have for the board. But the take-home on this is, yes, we can develop TAC measures coastwide, and that's from a multi-species MSY calculation, and then distribute those TACs at the regional level based on historical catch information.

ITEM F DISCUSSION

CHAIRMAN TRAVELSTEAD: Matt, did you have any follow up on this?

DR. CIERI: No.

CHAIRMAN TRAVELSTEAD: Questions or comments? I'd like some additional explanation with respect to the comment that setting a specific catch cap for a particular area is risk prone. Can you

provide more explanation to that?

DR. CIERI: Okay, if you set a quota for a particular area and that quota is restrictive, you're going to force effort into the outlying areas. So if you leave those areas open and constrain the catch in one particular area, basically what you're doing is shifting effort.

And the question is, if you do that, do you recognize that you could be shifting effort on to spawning individuals in the process of spawning or more likely, at least in my opinion, onto Peanut Bunker off North Carolina during the fall fishery.

DR. MAHMOUDI: Mr. Chairman, if I may, Matt, if you can just provide the board with a summary of in the case of Atlantic herring, what sort of a process did you all go through, just a summary of it, how the MSY was calculated, how optimum yield was calculated, and how the TAC was decided, just a short summary.

DR. CIERI: Yes, basically Nancy went over it a little bit today, and I'm sure lots of people who are around the table who understand Atlantic herring certainly understand a whole lot better how the management system works.

Basically for Atlantic herring an MSY value is arrived at. From that, a lower OY amount is specified by the management board. The difference between OY or optimum yield and your MSY is taken as a precautionary measure to account for forage, uncertainty in the models, ya-da, ya-da, ya-da.

After that, that OY is then further divided by sub-areas along the coast, along the range of Atlantic herring based on a risk assessment sort of approach, using historical landings and also some known mixing ratios or supposed mixing ratios between stock components.

The big difference for Atlantic herring is that we know we have sub-stock components that are not reproductively isolated but are definitely distinct, an in-shore and an off-shore population. So everything is done by hard TACs and everything is closed when an area reaches 95 percent of its TAC.

DR. MAHMOUDI: So you basically had your MSY level and you decided --

DR. CIERI: And you reduce an OY amount --

DR. MAHMOUDI: Twenty percent?

DR. CIERI: Well, I think it's currently 20 percent, although maybe some of the other managers can give me a hand with that. And afterwards, after that, you know, amount, it is then further broken up into each specific area.

To get at your point, the idea was to limit the areas so that you weren't simply capping one area, forcing effort into another location that hasn't experienced historical removals, to sort of minimize that transference of effort and to prevent some of the uncertainties associated with that transference of effort.

CHAIRMAN TRAVELSTEAD: Are you suggesting that what is done for the herring fishery we will have the ability to do when the MSVPA, if it's successfully peer reviewed and available?

DR. CIERI: That will be one of your -- I mean, that is an option if that's the way the board wishes to go. The alternative is setting an MSY that can be removed from one specific location. When the MSY number is coastwide, it is probably a little more risk prone.

CHAIRMAN TRAVELSTEAD: Thank you. Other questions? Lots of hands. We'll just go down the table: Bruce, Vito and David.

MR. FREEMAN: I think the issue, just to continue on the points that Matt made, in the herring fishery age is not quite that critical. In the menhaden fishery it could be. The difference between a zero and a three-year old fish is considerable.

It would seem to me that in making recommendations, not only do you need to look at weight but also age in menhaden as opposed to herring. And the reason I say that, for example, your example in one area being a TAC and then the effort is put into another area.

Well, if that catch is on zeros as opposed to a four-year old fish, number-wise it's a big difference. I think in menhaden fish we need to look both at weight and numbers. I don't think you can separate them. There has to be some combination where in the herring fishery that doesn't appear to be a problem.

I mean, there is a fishery on sardine size but that seems not to be an issue any more. I think again you

have to look at these two functions, not just weight. There has to be also the weight and the number combination.

DR. MAHMOUDI: The only comment on that is the model that is going to be used is age structure model, but again it's a coast-wide age structure model, so it's taking into account the age questions, not region-specific but coastwide.

CHAIRMAN TRAVELSTEAD: Matt.

DR. CIERI: I'm not saying whether it's a good idea or a bad idea or an indifferent idea. What I'm saying is if you're going to set TACs, you probably want to think about some of the biological implications of transference of effort.

CHAIRMAN TRAVELSTEAD: Vito.

MR. CALOMO: Thank you, Mr. Chairman, once again. Being one of the first managers to bring to the table a request for an FMP for herring and being part of that, I think there is a big difference and you've got to be very careful.

Because, in crafting the FMP for herring, I feel that the managers did something very shrewd. It wasn't to limit the catches because we had the ability, actually the science background to catch more herring in the beginning, a lot more than we delegated to our fishermen.

But we did set TACs lower because of TELF -- oh, absolutely, my friend, absolutely. I was on the council. We did not want any more foreign fishing. We did not want to leave that big carrot. We're talking 2.2 million metric tons of herring being sitting in the ocean. We did not want to leave that carrot.

We wanted to develop shore-side facilities, and we did it. We have developed shore-side facilities where we do not allow foreign fishing on herring, a big difference between herring and menhaden.

There is not an ability to allow foreign fishing on menhaden, big difference. So you've got to take that in consideration. Although I pride the New England Fisheries Management Council on setting up a fine, fine FMP, there is a big difference, and you really must look in the background of what we've done, of what we did. Thank you.

CHAIRMAN TRAVELSTEAD: Before you start, David, I've seen a couple of hands in the audience and we will get to you, but I want to wait

until the dialogue with the board is finished. But we will hear from you on the issue. David.

DR. PIERCE: Regarding a comment I think that Matt made in response to a question that was asked about herring, the applicability of herring management strategies to menhaden, my attitude regarding herring and menhaden is that I'm looking forward to the MSVPA to be peer reviewed so we can look at it and then perhaps consider whether that particular approach is appropriate for sea herring, because there are so many ecological considerations that relate to sea herring that they've got to be addressed.

Right now we can't address them, and this, to my way of thinking, is the first step enabling the New England Council to consider all of these predator-prey relationships, marine mammals and sea birds and what have you.

There are many similarities between menhaden and sea herring, but I think we're going to watch menhaden and then go from there into sea herring, and that's the proper sequence. Regarding the MSY for sea herring and the OY, the MSY values are being debated right now.

Actually we have a couple of options that are going out to public hearing. One is 317,000 metric tons. Another I think is 220,000 metric tons. Sea herring is extremely abundant region-wide.

The reason why the OY is less than the MSY, considerably less than the MSY, is due to in part some of the points that Vito made relative to who is going to harvest this fish, but it's also due to the fact that there was the thinking by the New England Council, responding to scientific advice, that indeed herring is prey.

And while we don't know how much is eaten by what species of fish, certainly it makes sense to factor in the obvious conclusion that we don't want all the MSY to be taken by commercial fisheries, assuming they could even do so, and they haven't got the capacity to do that yet.

Let's leave some aside to deal with what we know to be the food requirements, to the extent we know them, of all these other species that prey on herring. So, those are my comments regarding this, Mr. Chairman. Let's use the MSVPA as a way to explore what to do with sea herring in an ecosystem-based approach.

DR. MAHMOUDI: And the difference that you noted is we are attempting to approach to do a multi-species MSY versus herring which is a single-species MSY.

CHAIRMAN TRAVELSTEAD: Larry.

MR. LARRY SIMNS: It just strikes me, when I look at that last paragraph and the last sentence in it about it's dangerous to put a cap on to force them in other areas, isn't that what the other states, every state in here except Virginia, has done to the Chesapeake Bay by banning the menhaden fleet three miles off their coast and forcing them all in the mouth of the Chesapeake Bay and creating this problem?

So, it's interesting to see that is an issue. What I would like to see more of is some of the Mid-Atlantic states open their waters a little more to take the pressure off of the Chesapeake Bay. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you, Larry. Other comments from the board or questions? Okay, any other comments? Otherwise, I'll go to the audience. There were a couple of points there. Where did Skip go? Skip, you had your hand up and then Jeff.

MR. ZINC: I appreciate you letting me talk again. To give you an idea how important it is, I took off work today without pay. Our group, we represent about 600 -- or I'm sorry 6,500 fishermen to give you an idea of how hard core we are.

I got a real kind of a common-sense question up there. Who would it hurt other than Omega Oil if you shut it down for one year, and let's see what happens. The thing everybody is missing, Omega Oil nets the bulk of the menhaden south of us. The fish cannot come up our bay.

And one thing Rich forgot to mention, we weren't just fishing around schools of little menhaden. These were big, adult menhaden that used to come up, all the way up in the Baltimore Harbor, which has got to be close to 200 miles away from the mouth of the bay.

You can do all these studies and all. You look at the one thing that's preventing them from coming up. It's the netters. They're taking just way too many. I'm just sitting here listening to all these studies going back and forth.

It looks to me like you all are going to study this into

the dirt for another five or ten years. The rockfish I keep coming back to; it's a success story. We used to catch them at 12 inches long, little baby ones, all we wanted.

It wasn't unusual to catch 50 or 100 of them. We were all guilty of it. They shut us down. They put us up to two at 18 inches. We've got a good fishery now. I think you've got to manage this the same way. You've got to look at the whole, big picture on this, that these fish are for everybody.

The rockfish have always eaten them. You all keep talking about the rockfish are eating them all up. That's what they do. Drop whatever Omega Oil takes, I know it's in the hundreds of tons, and see what happens just for one year.

I mean, you've got the studies to show what was going on when Omega Oil was netting. Drop them out for one year. I know they're going to cringe. They'll probably shoot me on my way home, but that's the way it's going to go. That's how passionate I am about this.

I apologize to the man for kind of mouthing off to him, but he's twisting around what we're saying from the heart. You know, he is reading off a computer. It's all a prepared statement. This is from the heart what I'm telling you.

If you could look at it that way, because we're almost up to the netting season, you all are talking about we'll study it into next year; we'll study next year. I'm really scared there won't be enough to manage after that. And then Omega Oil is going to move up and down the coast again where they used to be.

CHAIRMAN TRAVELSTEAD: Okay, thank you. Jeff, and then I'll get you, Neils. Did you have a question for him, Neils?

MR. MOORE: I just had a statement. First of all, I'm jealous of the gentleman that he gets to spend his time fishing. I wish I could fish more. But to answer your question about who would it hurt if you were to impose a ban on this fishery, well, the obvious answer, of course, is it would hurt the non-fishing public.

The vast majority of people in Maryland, Virginia, the East Coast, do not fish. They rely for their access to this menhaden fishery on industry. If you've ever had swine products, poultry products, you have more than likely indirectly eaten menhaden. You are

relying on this harvest by industry in order to -- you know. This is the benefit that it has. It's for the nation as a whole, not just fishermen. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you, Neils. Jeff.

MR. KAELIN: Thank you, Mr. Chairman. I am Jeff Kaelin and I'm speaking for Omega Protein at the moment, but also for many of you around the table who have been doing herring management, I've worked with you for the last -- we started in '94 I think on the herring plan.

I've been representing the sardine industry with my heart and my head, both, over all that time. And there is some difference. One of the most fundamental differences is the one that Mr. Simms just outlined to you, and that is that the fact that the Atlantic States Marine Fisheries Commission Charter has worked to the benefit of a herring fishery that takes place in the state waters of several states and in federal waters.

Of course, that doesn't happen with menhaden, unfortunately. I hope as we develop this research agenda and work together to better understand the impact of our fishery and predation and pollution and everything else, that the managers around this table would think about a strategy that would allow for coastal menhaden fishing in the future.

We very much would like to see that happen, and unfortunately that's not the case. With herring, we have ratcheted back the OY, and it is because there is some scientific uncertainty. There are two assessments, one that the Canadians have and one that we use in the U.S. side.

That was one of the most fundamental reasons for doing it. But Vito Calomo is absolutely correct, the issue of TALF is very much in play in managing herring. In fact, the proxy MSY of 220,000 metric tons was advised by the council, and actually it went down to 180,000 metric tons because we took a reserve off the table that wasn't being used.

In addition to that, the National Marine Fisheries Service in their specification comments or position the other day further ratcheted down our OY to 155,000 metric tons precisely because they were concerned that DAH and DAP did not square and that there was a concern for TALF, so that is absolutely an issue.

It is certainly not an issue with menhaden. The most

important issue I think that I wanted to comment on is the lack of our ability in Omega Protein to take our fishery out of the Chesapeake Bay and go to some other areas that have been closed down by the states that are being represented around this table. We look forward to working with you, truly working with you, to develop an MSY. I think the MSY for menhaden probably is somewhere in the neighborhood of 450,000 metric tons. The 170,000 or whatever was taken last year is a third of that. So, you know, an MSY would be nice to see.

It's pretty hard to accept the idea of a cap on a fishery when you haven't even identified MSY. And the other issue is that we need access in the other states, and we want to work with the states around this around this table to restore that in a responsible way. Thank you.

CHAIRMAN TRAVELSTEAD: Thank you. In just a minute I think we're going to take a little break here. We've been sitting here for quite a while. Then we'll come back and get into Agenda Item 6 and 7.

But before I do, I want to make sure I'm correct on one point, and that is that the technical committee at this point is more or less finished with these items, that you cannot give us additional answers until more research and more modeling is done. Am I correct in that or not?

DR. MAHMOUDI: As far as the modeling route is concerned, yes. We are going to have to rely on the multi-species subcommittee's activity with the MSVPA, and their presentation back to us, the technical committee. And sometime hopefully in the spring, we will be able to have some preliminary result from the modeling approach to the board.

CHAIRMAN TRAVELSTEAD: And at that point, do you think we're going to need another meeting, a combined meeting?

DR. MAHMOUDI: I would say that would be pretty beneficial.

DR. CIERI: But, I mean, honestly, the stuff dealing with the multi-species model is done through an entirely different committee. And, honestly, it's not just going to be about the Menhaden Board. It's also going to be about the Striped Bass Board, the Bluefish Board, the Weakfish Board — you see where I'm going.

CHAIRMAN TRAVELSTEAD: Or Multi-

Species Board.

DR. CIERI: Or whatever you guys figure out.

DR. MAHMOUDI: But I would say whatever stage we are going to be, I think sometime by spring we should have some preliminary, whatever level it is.

CHAIRMAN TRAVELSTEAD: Yes, you're talking spring 2006. Right, okay. Okay, that's what I was interested in. Let's take a ten-minute break. Please be back here in ten minutes. We will continue.

(Whereupon, a recess was taken.)

ADDITIONAL DISCUSSION

CHAIRMAN TRAVELSTEAD: Okay, if you will take your seats, we'll get started again. Okay, we're going to reconvene here. Please ask the board members to take their seats. We're now at Agenda Item 6, which is additional discussion. I would note at this point I think the discussions we've had thus far have been very helpful to me.

I hope they've been helpful to the technical committee and the other board members. I think they have. But this is an opportunity, we still have a few minutes, for any other comments or questions from the technical committee or any additional questions from the board members.

Perhaps something wasn't clear to you earlier today that you want clarified, so we do have a little bit of time on the agenda for that. Bruno.

MR. BRUNO VASTA: Thank you, Mr. Chairman. I had a very interesting discussion during the break period with Dr. Mahmoudi. And again, from my perspective is that whether the causes are climactic or loss of habitat, predation, whatever, it really, to my way of thinking, doesn't make a bit of sense what the cause is, but indeed we're seeing analytical observations within the Chesapeake Bay, in our Maryland portion of the Chesapeake Bay, that a problem certain exists.

And, you know, whether it's a lack of menhaden in the upper bay portion for predator fish to feed on or observations that our small stripers up there — and we're the breeding ground — don't have enough to feed on and therefore they are prone to health issues, whether we are seeing very definitely that fall

migration of stripers into the Maryland portion of the bay in the last three years has steadily gone down, gone down, gone down, now it would seem to me that the board has got to set some kind of guidelines for prudent managers to take appropriate measures to protect this resource, whether you want to call it a cautionary approach or what.

A cautionary approach has been used in other instances around this country. Menhaden is that Number 1 resource, and it seems to me that we've got to take some kind of definite steps to protect the menhaden stocks in the Chesapeake Bay. Thank you.

CHAIRMAN TRAVELSTEAD: Any other comments or questions? Tom.

MR. FOTE: I guess a question for Doug, if Doug could give me some information. One of the things I'm looking at is I note the percentage of ones and twos made up in the overall catch has dropped from a couple of years ago where it was up to 17 percent.

But what I'm looking at is what percentage of that -- even though it's like 1 or 2 percent, but what is that percentage of the overall one to two catch? So what I'm saying, is that a bigger percentage right now than it was before or harvesting on ones and twos?

The numbers might be down but is the percentage larger than it was a few years ago? If somebody could give me that information, I'd greatly appreciate it.

DR. MAHMOUDI: Doug would have it. In fact he had a graph on that, but he is looking for the proportion of Age 0 and 1 in recent catch compared to previous historical levels.

DR. SMITH: Joe Smith, Beaufort Lab. The raw data from the 2004 port samples from Chesapeake Bay, again, this is raw port samples, not weighted by landings by week, 1 percent zeros; 9 percent Age ones; 83 percent twos, 7 percent three-pluses. And in a given year Age 2s are a lion's share of the catch in Chesapeake Bay.

CHAIRMAN TRAVELSTEAD: Do you have a follow up, Doug?

DR. VAUGHAN: Yes, I don't have the results of the stock assessment in front of me, but certainly the proportion of the zeros caught relative to the zeros in the population is an extremely small fraction of 1 percent.

And in terms of the ones, I forget what the Fs were coming out for ones, but I know they were down around 0.1 or so. I'd have to look at the stock assessment to see the values. I don't remember, to be honest, what the trend was. I think it was fairly flat, with ups and downs, but I don't remember precisely.

CHAIRMAN TRAVELSTEAD: Tom, a follow up.

MR. FOTE: Doug, what I'm asking specifically is I know a couple of years ago it was 14 percent of what it was. Fourteen percent of the catch was on zeros and ones, the overall catch. But what I'm not really asking is not that, I'm asking for -- at that 14 percent, I didn't know what that was of the zero and one population. What I'm looking at it, even though it's down to 1 percent, what is that 1 percent of the zero and one population?

DR. VAUGHAN: An extremely small amount.

NEXT STEPS/ TIMEFRAME FOR ADDITIONAL ACTION

CHAIRMAN TRAVELSTEAD: Other comments, questions? All right, seeing none, we're going to move to Item 7, next steps/time frame for additional actions. Everett.

MR. PETRONIO: Thank you, Mr. Chairman. I'd like to thank everyone who has participated in this process. We've got a room full of I don't know, I don't have a good number to guess at but close to 150 people, anyway, who probably represent several thousands of people.

And we've had a very productive discussion and dialogue between managers, scientists, users, industry. As some of you may know, I'm very new to this process, and it has been gratifying, actually, to see the level of involvement by all the user groups entreating in an open and honest dialogue.

We're faced with managing a species that's highly important to other fish, to user groups. The science is unsure. I don't think that any of us know for sure what is happening. I do know that the "window test" doesn't look good.

The window test is when I look out my window over Narragansett Bay, I don't see the adult menhaden that I used to see when I was growing up. I think we have a several-year gap between the science that we'd like and the science that we have.

We've got a condition of uncertainty in an area that is the breadbasket of the East Coast. No one wants to be sitting here in two years wishing that we had done something two years ago. I have provided the board with a motion that I've asked them to put up there now and I can read into the record.

I'm going to move to initiate an addendum to the Atlantic Menhaden Management Plan under the adaptive management provisions of the plan to limit the catch of menhaden in Chesapeake Bay by purse seine to no more than 110,400 metric tons annually in 2006 and 2007, and to initiate a research program immediately to determine the status of menhaden populations in the Chesapeake Bay in order to conserve the species while more complete population information is attained to assess whether localized depletion is occurring in Chesapeake Bay.

This is something that's supposed to go out to the public for comment. I think that we just need to get this ball rolling. Unfortunately, we don't move terribly fast and I think it's very important that we begin this process.

CHAIRMAN TRAVELSTEAD: Is there a second to the motion? Seconded by Pete Jensen. Neils.

MR. MOORE: I must respectfully object to the introduction of this motion at this time. This subject is not on today's agenda in any way, shape or form, and it is therefore out of order. I have a three-page letter in front of me from Brand & Frulla, which is a legal firm representing Omega Protein.

It addresses Mr. O'Shea. I do have copies here. Nancy, if you would please distribute these to Vince and to Jack, our chairman. With your permission, Jack, I'd like to go ahead and read this into the record. Thank you.

Dear Mr. O'Shea: As you are aware, we represent Omega Protein, Incorporated, in matters related to the management of Atlantic menhaden by the Atlantic States Marine Fisheries Commission.

You are similarly aware that the ASMFC Atlantic Menhaden Board is holding a special and unusual meeting with its technical

committee in Alexandria, Virginia, today, following up on a meeting by the Atlantic Menhaden Technical Committee yesterday.

Our clients, Omega Protein, are concerned that based on statements made at yesterday's meeting, a motion to adopt management measures, specifically a cap on total allowable catches, may be presented to the board for action.

This, we believe, would run afoul of proper notice requirements because the advance agenda for this meeting did not put the public on notice that such actions would be in order.

Viewing the matter purely from the perspective of open and informed public rulemaking, as befits an organization entrusted with regulatory authority, such advanced notice is vital to ensuring that the regulated community has the opportunity to attend and make their views known.

However, as explained in greater detail below, we believe that under the governing instruments of the ASMFC and other legal authorities, such prior notice is also a legal requirement.

The stated purpose of the meeting was for the board to "review management charges to staff and technical committee." More specifically, at its November 9, 2004, meeting, the board tasked the technical committee to explore a series of issues emanating from last October's Atlantic Menhaden Workshop relative to the menhaden fishery in the Chesapeake Bay.

A commission press release following the November meeting stated, "The board will meet jointly with the technical committee at the February 2005 ASMFC meeting week to develop revised goals and objectives for menhaden

management to incorporate ecologically based reference points in the stock assessment and management measures for menhaden.”

There was no notice to the public that the board would take any management measures today. In fact, the agenda specifically states that one of the purposes was to “evaluate whether various measures such as harvest caps “can be modeled, measured, or monitored well enough to be considered for management tools.” In short, there was nothing to alert the industry or the public more generally that such actions would be considered for adoption.

Under Amendment 1 to the Atlantic Menhaden Fishery Management Plan, the most abbreviated form of rulemaking provided for is the so-called “adaptive management” process.

Under this procedure, the board is to direct the Menhaden Plan Review Team to prepare a report “containing recommendations concerning proposed adaptive management revisions to the management plan.”

Based on such a report, the board may then direct the PRT to prepare an addendum which is to be distributed for review and comment to all states which may request public hearings.

Comment from federal agencies and the public must also be solicited. Following a thirty-day period of review, the PRT prepares a final addendum for adoption or rejection by the board.

Adherence to the requirements of the FMP is required by the ASMFC Charter. The only exception to a board’s rule-making authority under either Section 4c3 or Section 6 dealing with standard plan

development processes is the power of a board to enact emergency regulations.

This power is significantly limited to “circumstances under which public health or the conservation of coastal fishery resources or attainment of fishery management objectives has been placed at substantial risk by unanticipated changes in the ecosystem, the stock or the fishery.”

There is no indication that an emergency currently exists with respect to this fishery, nor is there any indication that this is the source of the authority the board may seek to exercise.

A compact is a voluntary contract between states that becomes federal law once Congress approves it. As such, a compact “is a legal document that must be construed and applied in accordance with its terms.”

Furthermore, an agency is bound to follow its own procedures. There is, however, a more fundamental legal impediment to any precipitous action by the board to adopt management measures without adequate public notice.

As an initial matter, the Compact itself envisions that meeting agendas will provide opportunities for public comment on proposed actions, which strongly implies that the agenda will apprise the public that such actions are also noticed on the agenda.

Moreover, federal case law suggests that proper notice will provide the public with opportunities for informed comment by fully disclosing the subject of the proposed rulemaking.

Furthermore, requirements for informed public participation in rulemaking are based on the

principle that the public has some notion of what actions are being contemplated.

For its part, to achieve these ends, the Administrative Procedure Act requires public notice. In summary, allowance of proper notice is not just a legal requirement, but also good public policy.

Omega Protein, therefore, requests that you intercede with the Menhaden Management Board and request that it not take any action to initiate or adopt management measures or any other action inconsistent with the published agenda for today's meeting. Thank you.

I would just add to this, if I may, Jack, this is the second meeting at which a motion has been made, in my view, that this board has been blindsided by draconian efforts to regulate the industry.

And if you look in the audience today, I think you'll find, at least to my knowledge, there is not a single captain here from the menhaden industry, either reduction or bait. I think that says a lot. The ASMFC must operate in an open and transparent environment. This motion violates that mandate.

CHAIRMAN TRAVELSTEAD: George, on this point.

MR. LAPOINTE: Yes, without getting into the motion, because I don't want to do that, I've got to disagree with some of the points in the legal letter that just came out. In my mind, there is a couple things.

They aren't talking about taking a management action. They're talking about initiating a process which we all know will go at near glacial speed. You know, I mean, this takes time and there is adequate notice for the public. It gives plenty of people interested on all sides of an issue a chance to engage in the issue, so I think that's important for people to recognize.

The other point is, yes, the PRT is asked every year to evaluate measures and take adaptive management measures, but that does nothing to the board's prerogative to initiate actions as well. I mean, there is two ways that can happen. The PRT can certainly

do that and make recommended changes, but we have that prerogative and right as well.

CHAIRMAN TRAVELSTEAD: Vince, do you want to respond at all?

EXECUTIVE DIRECTOR O'SHEA: Well, I don't think I at this point could add anything more than what Commissioner Lapointe has said. This is simply initiating a process here that would eventually include lots of public input, public notice, a range of options, a range of input.

I'll refrain from making the obvious comment that at least some people knew this might have been up because we have a letter in front of us addressing it. Thank you.

CHAIRMAN TRAVELSTEAD: There were a number of hands that went up, and I'm going to call on those who are speaking to this issue, not the motion, so let me see those hands. Everett and then Pete and then John.

MR. PETRONIO: Well, pride of authorship aside, I'm slightly familiar with the legal process. It's what I do the other three hundred and something days. First of all, unfortunately, George stole a lot of my thunder. I was just a little more upset than George. He pulled it much more politely than I would.

MR. LAPONITE: It's my nature.

MR. PETRONIO: And we like your nature, George, thank you. This is to initiate a public discussion of a management issue that has been pending for, I want to say months, I want to say years. This is nothing more -- I have put a motion on the record in November. That motion was tabled.

I don't know that I have to go back and bring that off the table, but if I need to do so, I will depending on what the board tells me. I will certainly defer. However, it is amazing to me that regardless, there are people here who took time out of work.

There are people from all segments of the user group cluster that are here. The fact that there was going to be a menhaden meeting has been on the agenda for months, more like years. These notices go out way in advance. And to indicate that this is some type of emergency action, it is not.

This is unfortunately what happens when you write your brief before you come to court. What is before

us does not say emergency action. It does not require immediate closure of a fishery. And, frankly, I'm insulted that people think that I would be quite so dense.

CHAIRMAN TRAVELSTEAD: Pete.

MR. JENSEN: Just to add a couple of things to what has already been said, I think anybody that was paying attention at the last meeting knew why that motion was tabled. I think the mover has the right to bring it to the table today if he chooses because it wasn't time-specific limited.

Secondly, I think the motion today is in the nature of a substitute motion for bringing that one back to the table, and so I think what we're doing is entirely proper, and I would urge you, Mr. Chairman, to rule this motion in order.

CHAIRMAN TRAVELSTEAD: John.

MR. JOHN DUREN: Mr. Chairman, I also would encourage you to rule the motion in order; and then according to the training we all received in parliamentary procedure, if anyone wishes to object to your ruling, they can challenge it, in which case the entire board would vote to decide to uphold your ruling or to not uphold it.

CHAIRMAN TRAVELSTEAD: Were there other hands up? Neils.

MR. MOORE: Well, hearing the opinions around the table, I suppose at this point in my position as the proxy representative from the Commonwealth of Virginia, I would formally request that before proceeding that ASMFC staff consult with its legal counsel to resolve this issue and to definitively determine whether we can proceed forward.

MR. DUREN: Point of order, Mr. Chairman. It's your duty now to declare the objection as accepted or not accepted.

CHAIRMAN TRAVELSTEAD: Bill Pruitt told me there'd be days like this. It's clear to me that the majority of the board think the motion is in order. And, based simply on that, I'm going to allow the discussion to proceed.

At this point I'm going to step down as chair so that I can speak against the motion, and Bob Beal will take over. But, is there anyone who disagrees with that from the board other than Neils? Okay, so that's the way we'll proceed. We'll let the lawyers do their

things later. Bob, you're going to take over at this point.

MR. ROBERT E. BEAL: Thank you, Jack. There's a lot of new folks in the room that haven't experienced kind of the switching of the chair, so I just want to let everyone know that consistent with ASMFC process and practice, if the board's chair wants to or needs to step down to speak in favor or opposed to a motion, the commission process is such that the director of the Interstate Fishery Management Program steps in and chairs the meeting as the chair debates the motion.

The vice chair of this board is A.C. Carpenter and he has indicated that he would like to remain as a member of the board and be able to participate in the debate. So with that said, I think George Lapointe had his hand up.

MR. LAPOINTE: Thank you, Mr. Chairman. Having spoken in favor of letting the motion go forward, I'm very uncomfortable with it. I talked to the maker of the motion about it and I've got three reasons.

The first is because it just references purse seine and not other gears in Chesapeake Bay. It is in fact getting into gear allocations, sector allocations. I'm not using the legal definition of those. I think that's something we really need to think long and hard about.

I am concerned as well about the precedent of this is two years and it has a sunset. I'm concerned that it's setting a course of action forward, and the sunset is a cold comfort because I don't see in two years enough information to materially change how we would view the situation.

Another way of saying that is I think in two years we'll come back and we'll have the technical committee here, and we'll be asking most of the same questions because I think it will take longer than that to answer the biological questions we're looking at.

MR. BEAL: Thank you. Pat White.

MR. PATTEN D. WHITE: Mr. Chairman, I just had a procedural question. There has been a lot of people that had concerns about this cap also extending out to the rest of the industry, rest of the fishery outside of Chesapeake Bay.

I'm not going to make that as a friendly amendment, but is it possible in the discussion process to have

that included in the public hearing document, realizing that this is just initiating an addendum?

MR. BEAL: Well, I think the motion stands as it is written. If the board, through its deliberations and over the course of the rest of this meeting, if they want to add issues to this addendum that should be considered and should go through the public debate, obviously that's the prerogative of the management board. The board does have the ability to add other issues and expand the scope of the quotas, which is your question, if that's the choice of the board.

MR. WHITE: To follow up on that, if I may. Then is that just for discussion points it wouldn't have to be an amendment to this motion?

MR. BEAL: If there is consensus around the table that the members of the board are comfortable adding different options or different aspects to this addendum, then they could be added. If there is controversy or some members of the management board that don't feel certain issues should be added, then motions will need to have been made to have those added. Everett.

MR. PETRONIO: To address Pat's point, this motion is a starting point. This motion, as much as I was upset by the emergency action discussion, this is to go to the public and I would encourage those around the table, if they think that there are additional options that should be considered by the public, I would encourage the board to bring those forward and put them on the record so that we could have an open debate regarding them.

MR. BEAL: Thank you. I've got Dr. Geiger and then Jack Travelstead.

DR. GEIGER: Thank you, Mr. Chairman. A question to the maker of the motion, what is the number of metric tons based upon? Is that strictly an average of annual harvest within Chesapeake Bay only?

MR. PETRONIO: That's correct, it is an average over the last five years.

DR. GEIGER: Okay, thank you, sir. The second question, if I may, the time period 2006 and 2007, you're rationale for just selecting that relatively short time frame?

MR. PETRONIO: It was kind of a "damned if you do; damned if you don't." We didn't want to get to 2005. That would require emergency action, which was not appropriate given what we've heard.

Two years, the technical committee wasn't sure how long they were going to need to get us the better information that I talked about when I made the motion.

I didn't want to make -- we didn't want to go too much further. I wanted to address Mr. Lapointe's question regarding, well, we may not have the information in two years. Two years seemed to be a good guesstimate of when we might know what we're doing. We can choose to extend this. I didn't want to make it too long so that we were bound well into the future. Thank you.

MR. BEAL: Jack Travelstead.

MR. TRAVELSTEAD: Thank you, Mr. Chairman. Virginia is obviously opposed to the motion. I am very concerned about a number of things. One is the very wide divide in opinion that exists between the public and our technical committee on these issues.

It is unlike anything I've ever seen in any other fishery. We really need to come up with a way to solve or shorten that divide. I'm not sure how we do that, but that's just an aside of something that we really need to focus on.

I'm afraid that if we proceed with an addendum now, because of the lack of good information that we have, that divide will only increase. I don't see it improving over the next year. Certainly, the board has the prerogative to pass a motion like this.

We heard earlier today comments about picking a number out of a hat, and I think this motion does that. That's the board's prerogative. There are times when you can do that and, you know, everyone supports the concept of being proactive on these kinds of things.

And there are times when those actions are right, but those times are when you don't see anything on the horizon that might benefit you in your decision process. I think here, now, based on what the technical committee has told us all morning long, there will be much more valuable information available to us by the end of the year.

And at that point, there will have to be some very significant discussions by this board and other boards, Striped Bass Board, bluefish, et cetera, to begin to make some tough decisions. At that point, at that point we might be able to make some very sound reasons, some sound decisions to continue with an addendum if in fact it needs to be done.

There are some other things that worry me. Number 1, the concept of unintended consequences. We heard a little bit about this from the technical committee this morning. If you put a cap on the fishery in the bay, what's going to happen?

The boats, if they need more fish, they're going to move outside of the bay. Now where can they go if they move outside of the bay? They can turn right and go south. And what will they fish on?

They will fish on the zeros, the peanuts, which is exactly what we don't want them fishing on. That's the recruitment. We're trying to protect every single one of those fish that we have so that they can get into the bay.

If they turn left and go north, what are they going to fish on? They're going to fish on the spawning stock, the three year olds, the four year olds, again, which is exactly what we're trying to protect in the hopes that at some point the environmental conditions will be right and we'll see an improvement in recruitment.

So I think there are some very serious unintended consequences that will result if we move forward with this motion. My last point is simply that all of you should I think be very concerned about these types of things happening to you.

In this case this is clearly aimed strictly at Virginia. You know, we don't have any information on localized depletion but it could be occurring elsewhere in other fisheries up and down the coast.

I think we're on a very, very slippery slope. With what little information we have, if we're willing to now go forward on this issue, I think you're all going to be subject to the same types of actions on other fisheries up and down the coast.

Are there localized depletion issues in Narragansett Bay or Delaware Bay or the Hudson River? I don't know. I just think we're on a very slippery slope that you all should be aware of. If you would just be willing to wait until the technical committee has the multi-species VPA and can do these further analyses, I think we'll be much better off and much more capable of making more informed decisions and much more in a position where the divide between the public and the science is decreased. Thank you.

MR. BEAL: Thanks. I've got a pretty good list going here. I'll just keep moving down. Tom Fote and then I have Bill Adler.

MR. FOTE: We've been discussing menhaden since I've been sitting at this board trying to figure out what's going on. The public has always had a disconnect because we saw local depletions going up and down the coast over the years and yet the stock was always not overfished.

When there was no menhaden in Maine, when they disappeared, when there was no menhaden in Rhode Island and Massachusetts, there was never a problem with the stocks. That always helped get this disconnect between the public and what the scientists were saying.

I understand some of the reasons behind this, but we need to get this aired. I'm not completely happy with this because it doesn't deal with I think a lot of the issues. There would be a lot of things I would like to add to this list.

But I think that will come out in public comment, and then we will have to look at the public comment and address those issue when they come in, because I know my state has some concerns and so does other states there.

So, it's a start in the process. Yes, I wish we were further along with the science, but I've been waiting to be further along in the science for a lot of years and it's gotten to a point that I can't wait any longer.

The public's not allowing me to do that. I'm getting a lot of pressure from a lot of people just to start doing something and start looking at something that we can do now. Thank you.

MR. BEAL: Bill Adler.

MR. WILLIAM A. ADLER: Thank you, Mr. Chairman. I've listened today to the natural mortality, including predation, far exceeds mortality of commercial fishing. The size of the commercial fishery has shrunk. Menhaden stock not affected by commercial fishery.

Menhaden stock not overfished and overfishing is not occurring. We always seem to be going by the best scientific information in all of our plans. Menhaden stock is controlled by natural factors.

Striped bass eat menhaden. Bass numbers are increasing, so are other predator species. Water quality problems exist in Chesapeake Bay. Abundance of forage species are declining in the bay other than menhaden or as well as menhaden,

perhaps.

The poor abundance of juvenile fish. Commercial fisheries don't take juvenile fish. Spawning stock biomass has increased along the coast. Stopping fishing in the bay won't affect zero to one class fisheries and we don't know the true answer to that.

For every 1 fish taken by commercial fisheries, 1,200 are taken by predators. The conclusion from the tech, striped bass are causing the local depletion. So, our solution here is to start an addendum that would put limits on commercial harvest. Somehow I just don't have the connect there with the best scientific knowledge that I just heard today. I can't support this.

MR. BEAL: I have a list of five more speakers, and those are Jeff Tinsman, Jaime Geiger, Neils Moore, Vito Calomo and Pete Jensen. Following that list, I'm going to alternate from in favor of the motion and opposed to the motion, and we'll try to keep the comments focused on the motion and wrap up this discussion. Jeff Tinsman.

MR. JEFF TINSMAN: Thank you, Mr. Chairman, just a couple comments. We all heard quite a bit from the technical committee today and I think we heard different things. But one of the things I got out of it was that this journey we're about to embark on down this road of future research is going to be very expensive, very time consuming in terms of number of years it's going to take and very uncertain in its outcome.

I feel that interim measures are appropriate, that being the case. And just to comment on Jack Travelstead's unintended consequences and diversion of effort, this is essentially freezing things at an average of the last five years, which I believe would allow an increase in harvest from Chesapeake Bay and wouldn't in and of itself cause any diversion of effort necessarily. Thank you.

MR. BEAL: Thank you, Jeff. Dr. Jaime Geiger.

DR. GEIGER: Thank you, Mr. Chairman. I have a question and then some comments, please. A question to the technical committee, when do we realistically expect the MSVPA to be completed and verified? Thank you.

DR. MAHMOUDI: Well, we have until the December peer review meeting to go through reviewing the multi-species assessment model and

run sensitivity analysis and calibration of the model. By December the entire model sensitivity runs would be reviewed by the peer review, so that will take us through December.

After it is peer reviewed -- and it depends on the outcome of the peer review, obviously. If the peer review is successful, the certified model, then we're able to begin to looking at these calculation of multi-species MSY and reference point based on MSY calculations.

And again, I guess Matt mentioned this totally depends on this multi-species subcommittee's progress toward that. Some of us are a member of the multi-species subcommittee. And with the familiarity of the model, perhaps by spring we can begin to look at this multi-species MSY calculation after peer review.

So the model, in terms of its existence, would be completed by December, peer reviewed. And if it is successful and certified, we can look at these MSY calculations by the spring of 2006.

DR. GEIGER: Thank you. Now, Mr. Chairman, some comments, if I may.

MR. BEAL: Jaime, just so everyone knows, the peer review venue for the multi-species model will be the Northeast Fisheries Science Center SAW/SARC process up in Woods Hole, Massachusetts.

DR. GEIGER: I guess my response to that would be I think that is somewhat a very optimistic time frame. To be realistic, I think we're looking probably at, I would say, probably more than two years to get something verifiable based upon what I've heard today.

And, Mr. Chairman, some concerns. We appear to have three options: status quo, a moratorium or some kind of cap. And from my perspective of what I've heard, status quo is simply not an option. Whether a cap or a moratorium is more appropriate than that, I think we need considerably more debate.

We've also heard two years, 2006 and 2007. Given some of the information that I heard from the technical committee, I think that is a way too short process. I think we're looking at a minimum of three to five years to realistically assess and evaluate and then have an appropriate model to do the ground truthing for the final results.

And my final comment is I think that, again, I am fully aware of the law of unintended consequences, but maybe I'm one of the few that remain that we had these same discussions in 1978, 1979 and 1980 about striped bass, and the world turns again.

The same questions we discussed then related to striped bass we are discussing now about menhaden. And, quite frankly, I don't think we can afford to wait. Thank you very much.

MR. BEAL: Neils Moore.

MR. MOORE: Thank you. I think Bill Adler brought up some very good points about science. I'd like to talk about what is the best available science. According to the ISFMP Charter, the standards that guide the development of management measures within the Atlantic menhaden and other FMPs include a requirement that they "shall be based upon the best scientific information available."

So what is the best scientific information available? I have before me three documents that commission staff have provided. First is the 2004 Atlantic Menhaden Technical Committee report. the second is the 2004 Atlantic Menhaden Plan Review Team report and, finally, the Menhaden Workshop report from the workshop that was held in 2004 October.

None of these scientific reports recommend the establishment of any interim management measures such as a harvest cap within the Atlantic menhaden fishery. Moreover, these ASMFC scientific reports indicate that the menhaden resource is healthy and not overfished.

Furthermore, in response to continued concerns of sport fishermen such as the ones we've heard today, this board has bent over backwards to address their concerns.

Last May this board directed the ASMFC to convene a menhaden workshop to specifically address the perceived ecological issues expressed by sport fishermen and provide management recommendations to the board regarding revised or new direction to the FMP.

After three days of scientific presentation and deliberation, the consensus of these workshop participants was that no additional immediate regulations such as an interim harvest cap were recommended.

Oddly enough, the discussion of a cap comes up while the fishery itself has been declining without a cap. Without any harvest cap, voluntary or mandatory, the coast-wide landings by the menhaden reduction fleet have steadily declined over 50 percent, from around 400,000 metric tons in 1990 to 184,000 tons in last year.

Similarly, harvests from the Chesapeake Bay have declined as well. So my question for the maker of the motion is, what is the specific biological objective of this motion? Thank you.

MR. BEAL: Everett, do you want to respond to that?

MR. PETRONIO: Yes. U actually also would like to address several of the points that Neils brought up. First of all, most importantly from the document I read, there was some discussion back and forth.

There was not a consensus at this three-day meeting that he references, so, again, I suspect that is a pre-packaged answer or a pre-packaged question. With regard to the point of the biological issues raised by this addendum, I think it's perfectly clear.

We are soliciting the public's comment to determine whether we think it is necessary to put a cap in place. We're dealing with the one area where menhaden are available to be caught and are being caught in an industrial scale.

I think that it's important that while the science that we've discussed ad nauseam here this morning catches up with our questions, we need to simply cap in place what we're doing so we do no damage to what we already have. Thank you.

MR. BEAL: The next speaker on my list is Vito Calomo.

MR. CALOMO: I'll try to be brief, Mr. Chairman. A lot has been covered already. I'll just tell Everett that your state of Rhode Island was in the menhaden business for years while they had a plant in Rhode Island, and the only reason they stopped it is because the plant went out of business after a while. They just closed it down. They did ship many fish in our plant in Gloucester until that closed down because of a lack of interest, not a lack of fish at that time.

All of us that have been on the New England Fisheries Management Council, the Mid-Atlantic

Council, the South Atlantic Council, have always known that we use the best available science. Maybe this motion is a good motion at the proper time.

In fact, I'll be quite frank with you, I thought Everett did a good job in comparison to what he did the last time. But we have the cart before the horse here, and that's not the way fisheries managers proceed. I just don't understand what we're doing at this point in time.

If we had the scientific information that we go by for all FMPs, I'd probably support this if it was called for, but we don't. We heard a great deal from the technical committee today, and I applaud their answers under some pressure.

But they were true to their scientific ability and their scientific knowledge. And with the information we have, we're taking a stab in the dark. There is no emergency action at this time that is needed to take place for the biomass of menhaden.

The person that had the \$50 million that wanted to give it to Omega Protein should give the \$50 million to cleaning up the bay because that's where it all starts from. You could have an operation that's a success, but if you don't stop the bleeding, he dies anyhow. You need to stop the bleeding, and the bleeding is coming from the land side.

We need the best available science, and we do not have it at this time, to make good judgment calls. I also want to say thank you to Bill Goldsborough, who I met years back who has stayed true to form, and I mean that in a complimentary manner.

Out of all the people I listened to, he came up here and stayed the course, and I thank you for that. Other people here are not leading with the science or their minds. They're leading under emotions, and that's not the way to make good judgment. I beg you all as managers to make good judgments when you're doing your vote today. And I thank you very much, Mr. Chairman.

MR. BEAL: Thank you, Vito. All right, one more speaker on the list that I had read through previously; and then following that, I'm going to, as I mentioned, go one speaker in favor and one speaker in opposition. There are some hands in the audience as well so we need to get to those.

But as far as the audience and public comment goes, I think the board has gotten a pretty clear sense of where the audience is and what they would like to see

as far as action on this motion. So with that said, I'll go to Pete Jensen, who is the last speaker on my list and, then we will alternate for and against.

MR. JENSEN: Thank you, Mr. Chairman, several points. Obviously, I support this motion for a lot of reasons. One, I think, as has been mentioned before, we have had too many experiences where we waited too long to be cautious, and we know what happens, and that is it magnifies the kinds of actions that we have to take in order to correct a problem that gets away from us.

I can't think of a better way to debate this issue than to go through a public process. There certainly is lots of public interest, and so it's not going to go away. We're going to have to deal with it. It is not appropriate or reasonable or responsible to say we'll wait until we get more information.

Sure, we have the best science available, but let me remind everyone that the very core issue here that has been raised, the science is uncertain boundlessly, and that is what is the impact of 60 percent of the catch of a coast-wide population that ranges all along the Atlantic Coast being taken in one estuary, and that is uncertain. It needs to be settled. It needs to be dealt with positively.

I believe that at some point we probably will be able to get to a non-quantitative point of reference as the technical committee has suggested to us, but if we don't go public with this, if we don't document this well, if we don't start the research, then status quo is just going to keep us bound up in an endless argument. I am strongly in support of going public with this, and let's make a decision.

MR. BEAL: Thank you, Pete. The first hand that went up following my list was Gordon Colvin. If you could let us know if you're speaking in favor or in opposition, then we can alternate from there.

MR. COLVIN: Thank you, Mr. Chairman. I speak in favor of the motion. I think Pete just said just about everything I wanted to say. I would point out that we're not in a position today of taking final action, but in fact of taking an action that will enable the public to participate in a dialogue that will lead to a decision by the board and by the commission in the future.

And given what I have heard, what I have heard about the status of the resource in Chesapeake Bay and what I know of the importance of the Chesapeake

Bay as an area of production for fisheries that many of us have spent decades of our careers working to improve for the benefit of all the East Coast residents, I believe that it is timely and appropriate to enable the public to contribute to this dialogue rather than to take action today that prevents them from doing so.

And the essence of the dialogue is, as has been pointed out I think very clearly by Pete, simply to take some action now while we continue to develop the science that prevents a problem that could arise from an increase in the in-bay harvest, significant in-bay harvest of menhaden.

It's appropriate, in my judgment, which I think Commissioner Calomo correctly identified as what is clearly at stake here is our judgment as members of the commission. My judgment falls on the side of letting this dialogue occur through the development and the public hearings on this addendum. Thank you.

MR. BEAL: Thank you, Gordon. Anyone wishing to speak in opposition to the motion that hasn't spoken yet in opposition to the motion? All right, seeing none, I did have a couple more names on the list that have not spoken yet.

I have two names, John Duren and Larry Simns. I'll go through those names and then we'll go to the audience for some brief public comment and then come back to the board following the public comment and hopefully efficiently wrap up the debate on this motion.

We are beyond our twelve o'clock time limit. It is an important issue so hopefully we can have a thorough debate but wrap it up relatively quickly. With that, John Duren.

MR. DUREN: I have a great deal of concern about the scientific questions surrounding menhaden in the Chesapeake Bay and some reluctance to take action with all those questions. On the other hand, I have a lot of empathy for doing something to get the process moving along. I think the motion that's before us has the potential to do that, and I support it for that reason.

And, also, I don't see harm to anyone given that representatives from Omega Protein have spoken to us on occasions prior and said that current harvests satisfy their foreseeable market needs, so I am in favor of the motion.

MR. BEAL: Thank you, John. Larry Simns is the last name on my list.

MR. SIMNS: Yes, I, too, am going to be in favor of the motion, and it's not without real hard thought about it. I've been agonizing over this for a couple months, and it's not easy for us to go against a fellow fisherman.

And what I see happening here really dismays me a lot because there is a lot of rhetoric going on and a lot of emotion going on here, and we don't want to act on emotion. That's one thing I always refuse to do, so none of that has swayed me in my decision at all.

The thing that does sway me in us doing something is that first it doesn't seem to be any economical impact that's going to affect the fishermen at this time. But, in all the things we heard from the scientists today, there's a lot of unknowns. And when we have unknowns, we need to act conservatively to keep us from getting in the same situation we had with the striped bass.

Now, we just came through an issue a few years back about a crab harvest because striped bass were eating all the crabs, but guess who had to cut back was the commercial fishermen, the whole fishery in a nutshell. It's the only one they can manage.

We've got environmental problems, we all recognize that. We've got predation problems, we all recognize that. But the only one we can really manage is the fishermen. I've been on the receiving end of that enough to know it's not an easy pill to swallow.

But I think the prudent thing for us to do is cap it so that it's not an economical hardship at this time and get the scientific evidence that we need to either do or not do anything or take the restriction off if the science says that we don't need it.

I don't think this should be a thing that's permanent. I think we should really press the scientists to get the information we need, so therefore I'm going to be in favor of the motion.

MR. BEAL: Thank you, Larry. There have been a lot of board hands still popping up. There has been two new hands that haven't spoken yet on this motion, so I'll let those two individuals speak, and then we will go to the audience, and those two members are Preston Pate and Bruce Freeman, and Bruce had his hand up first.

MR. FREEMAN: The question had is I

understand the motion, I understand the concern, but it would seem to me that following the logic that has been offered for this motion by Everett, that a cap should be placed on the entire harvest not just purse seine harvest.

And this issue was raised, I forget by who, but certainly if for some reason we saw an increase in the harvest by other gears, although at this point they're relatively minor compared to the purse seine, but an increase at the same time we cap the purse seine fishery I would think we would not be doing ourselves justice.

I'm just wondering if the maker had in mind some way that this, what I see as a flaw, could be overcome, or is it anticipated that the plan development team would address some of these issues?

MR. BEAL: Everett, do you have a direct response to that question?

MR. PETRONIO: I'm not sure what the answer is. To answer Bruce's question, I'm not sure how the plan development team would act on this as far as the issues that you've raised, although I would encourage and welcome comment to allow the public to comment as well on potential for a cap coastwide.

MR. BEAL: Preston Pate.

MR. PATE: Thank you, Bob. I'm going to speak in support of the motion primarily to allow the process to go forward more so than in support of the substance of the motion.

I have no doubt that in the course of airing the addendum with the public that we're going to continue to hear comments of the nature that we've heard today and heard for the last several months that are being made at least in the characterization of some from the heart and not as much from a scientific basis.

But, nonetheless, the issue before us is significant enough to make every attempt to try and extract as much scientific information out of the process as we possibly can to make an informed judgment.

And this is another step the direction of letting the process work, and I'm willing to support it to that extent. But even having said that, I think it's extremely important that we not lose sight and not forget some of the very fine points that have been made by Mr. Moore, Mr. Travelstead and Mr. Adler

this morning relative to the science of the matter.

I would in no way advocate going forward with any management measure that is based on anything other than the best scientific information available. And as long as we keep that idea as the primary purpose of this board, then making that judgment later on, after we have let the process work, is a fair position for us to be in. Thank you.

MR. BEAL: Thank you, Pres. Could I have an idea from the audience how many folks would like to speak. I see four hands in the audience right now, maybe five. I think we'll need to keep the comments brief.

As I mentioned earlier, I think the board members have a sense of what the members of the audience feel. We've had a couple opportunities for public comment so far, so if you could keep your comments brief and directed to the motion, that would be helpful for the board as they're considering their votes. With that said, Toby, please come forward.

MR. GASTON: Toby Gaston with Omega Protein. I come before you today just to give you a little sense of where we are. I came into this job a couple of years ago with probably some overly optimistic expectations, and that was that after finding a lot of fights between commercial and recreational fishermen, I always saw an opportunity for us to get together and come to a common ground on the resources that we share.

And that's how I would like to be. I would love for all these guys in the audience to be able to call me and us work something out. Captain Such-and-such is catching fish this day, having a good day. I wish he could call me and my boats wouldn't go around there, because I think that's what this issue boils down to.

A lot of people have talked about the science. I'd like to talk about the user conflicts. It gets to the root of the issue. The problem I've found, as I went forward, was that was impossible because I had nowhere else to go.

If I could go to other states, Rhode Island, New Jersey, that have closed the fishery, this would be possible. But this industry has over the years been forced to compromise itself into a box, and that box is now basically Virginia and the Chesapeake Bay.

So, I want everyone to understand that in order for us to make it out there, we have to play with the hand

that we're dealt. I have always had every intention of working with everyone on this board.

The ones that I've met with I think will tell you that any time you've called me, I've flown the next day and met with you to address your concerns. I've tried to compromise. I've had people offer me compromises. I think that's always the way to go.

Understand the position that Omega Protein is in is that we have compromised all we can. We just have nothing else out there because we have nowhere else to go. We've been shut down. And I think that's a fundamental of interstate fisheries management is to allow that not to occur. I think that point does need to be addressed.

But with all that being said, and I'll wrap up here, several members have said this is going to be of no economic consequence to start this process. I want to remind you that Omega Protein is a publicly traded company.

Anything that comes out in the press and in the media and in the so-called scientific websites that are being thrown around everywhere else, that hurts us as a company. That directly can result in job loss without you restricting this fishery at all.

So, I just want the members to think about that. It's not black and white as you're looking at it. And when a lot of people say, well, why don't you just compromise, you said you're not going to catch any more fish, yes, that's true.

I think history shows that our catch has gone down. But you have to understand as a business the position we're in. I want to compromise. I want to work with everybody. My door is always open. Anyone can feel free to call me. That's all I have to say and I hope you think about these things and I hope we can see somewhere where we can move forward.

MR. BEAL: Thank you, Toby. Pat, do you want to ask Toby a question?

MR. PATRICK AUGUSTINE: Yes, thank you, Mr. Chairman. I think we've pretty well addressed all the issues and concerns. Mr. Adler put everything in the best perspective I've heard along with comments from Mr. Moore and so on. It just seems to me to hear more comments, positive or negative -- quite frankly, in looking around this table, I believe the board has pretty much come to a conclusion.

Unless there is some brand new information or comments people want to make that we haven't heard in the last three and a half hours, I would suggest we call the question, Mr. Chairman.

MR. BEAL: Thank you, Pat. You know, there has been considerable debate but, again, I said that I would go to the five folks that had their hands up in the audience. I think we have an obligation to go to those guys.

MR. BEAL: Ken Hinman has declined. Bill Goldsborough, did you have your hand up?

MR. GOLDSBOROUGH: Thank you, Mr. Chairman. I just want to make a quick comment about the nature of the science. It has been implied or suggested, perhaps just left the impression, that the technical committee and the workshop last fall recommended against interim management actions.

That is not the case. In fact, neither one of them recommended anything about interim management actions. It could just as readily be said they did not recommend against interim management actions.

The science comes back to the stock assessment primarily when you see recommendations in the plan review, and that gets cited sometimes as well, it all is based on the stock assessment. And as we know, the stock assessment, in a traditional, single-species, coast-wide mode, did find that the stock was not overfished and that overfishing was not occurring. We know that.

There was also a peer review, another piece of science that endorsed that on that coast-wide basis, but also recognized the limitations of the stock assessment. It recognized that the stock assessment was not a useful tool for detecting problems that would occur when the harvest was concentrated in one part of the coast, and that is what is happening.

We know that's what's happening, and it happens to be a very sensitive part of the coast. There also is information to show that in numbers of fish, the coast-wide stock has been declining steadily for ten years and is approaching the all-time low when a stock was declared overfished. That's scientifically derived information.

There is also information on striped bass diets and striped bass health and recruitment and all these have been cited. That's all scientific information, so I just want to set the record straight that there is a whole lot of information out there. Thank you.

MR. BEAL: Thank you, Bill. Jim Price, you had your hand up. If you could speak to the motion, Jim, please.

MR. PRICE: Yes, I'd like to make a comment that the board is faced with almost an impossible task to try to make decisions when you're going against the technical committee's advice. I think this is a big part of your problem, your dilemma, that you've got to address and deal with sooner or later, and that is your peer review process brings in scientists for two or three days that are expected to understand a complex issue and give an approval, and the ASMFC process based on this procedure is not working.

I think that you ought to consider not maybe replacing or shoot the messenger, the technical committee, but you have resources within the commission. You could bring in other technical committees or one technical committee that could examine the same set of data that the assessment has and maybe come up with a different opinion because the opinion you're continually getting from the current committee, I think they're set in their ways.

They're closed minded to a lot of issues, and they're not looking at their assessment in the way they should. They're narrowly focusing in on the model --

MR. BEAL: Jim, let me interrupt you for a minute. The commission's peer review process isn't part of this motion; so if you have something to say to this motion, please say it and then we can move on.

MR. PRICE: Thank you very much.

MR. BEAL: Thank you, Jim. I think there was one more hand in the audience over on this side of the room. Ed O'Brien, and then we'll wrap up the public comment and come back to the board for brief comments.

MR. ED O'BRIEN: Briefly, it was about this time last year when I asked you all to consider this problem. The statement was made that there was no money and no time for it. You all, going through your process, reconsidered and obviously you're putting some time to it.

We support this motion or any similar motion. I represent the Maryland Charter Boat Association and I'm also vice chairman of the National Charter Boat Association. The Maryland Charter Boat businesses

have a lot of respect for people that are in business, and that includes Omega.

We still feel that you all will come up with a compromise to make something work here for everybody, just as you did on striped bass and where my 400 small businesses couldn't fish for five years. I don't want to hear too much about penalties, you know. Sometimes we all go through it. Every state around this table has had a problem where they've had to curtail gear types or groups of fishermen.

Now one thing that depresses me about this, and I'll end with this, is when I hear on one side the people who are against Omega and sometimes the measures that they propose are impractical. They connote putting them out of business.

But on the other hand, people that represent Omega, they discuss the bay as being, I think I heard the word "cesspool" earlier, and, boy, that ought to be corrected for the record. We have problems in the bay.

We're making measures in Maryland to rectify these problems and to fight that battle. But the bay is an opportunity for people's lifestyle. It's recreation. We take out close to a million fishermen a year.

That's a lot of people that enjoy the bay, and I just don't want to see the insults toward the bay quite as extreme as some that I heard today for the proponents supporting Omega. So we want to compromise, and we appreciate the time you've put to this and we support this amendment.

MR. BEAL: Thank you, Ed. Jeff, quickly, please.

MR. KAELIN: Thank you, Mr. Chairman. Just briefly, I don't remember that anybody here from Omega Protein said the Chesapeake Bay is a "cesspool", and in fact nobody wants to see a healthier bay than the people who rely on the fish that we take out of it.

We've talked a little bit around the issue that we don't have a lot of flexibility, and I would like to put on the table a request to someone around the table to amend this motion to require the coastal states represented here to sit down and begin to discuss reasonable access to their coastal waters for this fishery so that we can begin a process of figuring out how we can spread out our effort in a responsible way.

I'm making a request to somebody here to put that motion on the table. I've already spoken to some people here, and I know it would be accepted as a friendly amendment so I'm making that request finally here before we close, because I think that's only fair.

The current situation is inherently unfair, contrary to the purposes of the Charter. And, as I said earlier, you were talking about herring, we don't manage herring this way. We do it in a cooperative way.

There are states that exclude reduction fishery that allow herring purse seining. It's a double standard and it's a large part of the problem that all brings us here today, so I'd like to ask the maker of the motion to consider -- and I know I can't make a motion myself -- amending this to begin that dialogue and spread the burden of this problem around the coast. Thank you.

MR. BEAL: Thank you, Jeff. Well, I think we're in the position -- and Jack Travelstead said it one time -- of will further debate on this issue change anyone's mind on their vote. I have two hands that have been up off and on throughout the public comment, and one is Neils Moore and the other is George Lapointe.

Based on all the heads that were shaking no when I asked if anyone's mind would be changed, I think I'll call on those two folks, and then I think we'll be ready to have a caucus and vote on this motion. Neils.

MR. MOORE: Thank you, Bob. I'll be as brief as possible. I think it's important that we further examine the objective of this particular motion. If the biological objective of this motion is to prevent localized depletion as it is enumerated in the motion, I think we should look at the potential causes of localized depletion and how any sort of regulations might affect that.

Is localized depletion currently being caused by an increase in harvest by industry? No. Harvests have declined both coast-wide and in the bay since the early '90s. Is localized depletion potentially being caused by an increase in predation on specifically Age 0 fish, menhaden, by striped bass? According to the technical committee, yes.

This motion ironically contains no discussion of striped bass at all, yet the TC has told us that localized depletion is likely being caused by striped bass for Age 0 menhaden. If localized depletion is

defined as too much fishing effort in one area, then obviously the closure of state waters beyond Virginia and North Carolina to the reduction fishery would only further compress the fishery into smaller and smaller areas.

Therefore, if this board wants to address the potential for localized depletion, the motion should instead propose to reopen fishing grounds as outlined by Jeff Kaelin previously closed by unilateral state action.

That in my mind is a solution. If we're compressed it as a board, we should uncompress it. If, as the maker of the motion has indicated, the biological objective of the motion perhaps is to protect forage-sized fish, the board must examine all the varying sources of mortality on these forage-sized fish, not just harvest mortality.

Commercial harvests only account for a fraction of the biological removal from this particular population. One out of every 1,200 fish in this system Age zeros and ones are being removed by industry. The rest, the 1,200, for every one, 1,200 are being consumed by predators, yet this motion to address localized depletion is devoid of any discussion on predators.

If the biological objective of this motion provided is to increase the size of the menhaden population or improve recruitment, again, the board must examine all the varying sources of mortality.

If the objective of the motion is to increase the size of the population, this board should make a recommendation to the Striped Bass Board to proceed with efforts to reduce predation on menhaden. Yet this motion right now is devoid of that.

In sum, in examining this proposed motion, if there are no scientific bases or biological objectives provided for through a proposed cap, then the intent of this motion to cap the fishery is clearly political in nature, so I once again would call upon the maker of the motion to please enumerate what the specific biological objective or objectives are for this motion. Thank you.

MR. BEAL: Thank you, Neils. George Lapointe.

MR. LAPOINTE: Thank you, Mr. Chairman. I feel like I went to bed last night reading the book "Sybil" about the person with multiple personalities. I like the idea of kicking this out to the

public because it addresses the issue Neils addressed about people haven't known.

Well, guess what, if we do an addendum, people will know and they will come out in droves. I am empathetic to the issue of coastal access, and my question is if this passes and an addendum is moved forward, will we have the chance to add other issues?

I think that's an issue I want to see added to the list but I don't know how to word it well today, and so my question is will we have a chance, when there is a draft addendum, to add other issues, in my case when I've had more time to craft something I think that would be right.

MR. BEAL: Yes, taking off my hat as stand-in chair and going back to the staff role, if this motion were to pass, I think the direction that the plan review team would get -- there is not a plan development team currently in place for menhaden.

So the Menhaden Plan Review Team would initiate the development of an addendum for review by this board at their May meeting. I think the members of the plan review team, a number of them are actually in the room today, all of them.

You know, I think they can capture some of the discussions and some of the things that were presented by board members that maybe should be in there and should not be in there. The access issue is probably one that they can work on.

This board, during the May meeting, will have an opportunity to review that document, make changes, make additions, removals, however they want to handle it. And if that document is satisfactory in May, then it can move out to public comment.

If it's not and there is additional work that the plan review team needs to undertake, we can send it back to them for further consideration in August. And again that's just my process. Gordon has a comment on the process.

MR. COLVIN: With respect to the process, Mr. Chairman, I agree with your representation of how it can and should go, but I would make one urgent request that given what will likely be the very substantive nature of the discussion about the content issues, the board members will need to have the PDT's draft substantially in advance of the board meeting.

MR. BEAL: We can do that. I hope we can

do that. Vince.

EXECUTIVE DIRECTOR O'SHEA: I guess sort of another option that's here, and I'm almost reluctant to raise this, but after the board deals with this motion and depending on the outcome, I'm wondering if it would be helpful and could be done in a brief discussion to outline some of the concerns that folks would like to see the plan team put into this thing and do that sort of at -- you know, just give that laundry list, to start to begin the laundry list, because otherwise it seems to me you're going to put certain things in and then you're going to come back in May and you may add things and then delete things, so that's another option that you all have.

MR. BEAL: Following the vote on this motion just briefly -- okay, we can do that. With that said, I think we'll have a one-minute caucus.

(Whereupon, a caucus was held.)

MR. BEAL: If the board members could come back to the table, we'll go ahead and take a vote. Now that everyone's back at the table, we'll get ready to vote on this motion. Before we vote, Everett.

MR. PETRONIO: I would just request that this was a roll call vote.

MR. BEAL: Okay, a request has been made for a roll call vote. I'll ask Nancy to call the states.

MS. WALLACE: Maine.

MAINE: Yes.

MS. WALLACE: New Hampshire.

NEW HAMPSHIRE: Yes.

MS. WALLACE: Massachusetts.

MASSACHUSETTS: No.

MS. WALLACE: Rhode Island.

RHODE ISLAND: Yes.

MS. WALLACE: Connecticut.

CONNECTICUT: Yes.

MS. WALLACE: New York.

NEW YORK: Yes.

MS. WALLACE: New Jersey.

NEW JERSEY: Yes.

MS. WALLACE: Delaware.

DELAWARE: Yes.

MS. WALLACE: Maryland.

MARYLAND: Yes.

MS. WALLACE: Potomac River Fisheries Commission.

POTOMAC RIVER FISHERIES COMMISSION: No.

MS. WALLACE: Virginia.

VIRGINIA: No.

MS. WALLACE: North Carolina.

NORTH CAROLINA: Yes.

MS. WALLACE: South Carolina.

SOUTH CAROLINA: Yes.

MS. WALLACE: Georgia.

GEORGIA: Yes.

MS. WALLACE: Florida. (No response) National Marine Fisheries Service.

NATIONAL MARINE FISHERIES SERVICE: Abstain.

MS. WALLACE: U.S. Fish and Wildlife Service.

U.S. FISH AND WILDLIFE SERVICE: Yes.

MR. BEAL: We have 12 votes in favor, 3 votes in opposition and 1 abstention. The motion carries. Ritchie has his hand up and I'll come to you in a minute, but I think we can briefly endeavor to get a list of options together or issues that should be addressed in the document.

If this kind of unravels pretty quickly, which I'm

afraid it might, we may have to develop a comment period and members of the board submit their comments to the plan review team for inclusion in the document. So with that said, Ritchie.

MR. G. RITCHIE WHITE: I would support George's idea of at least discussing the opening of state waters, other states that are now presently closed, so at least to have that on this document as a discussion.

MR. BEAL: We can do that. We don't need to vote on any of these issues. Anything that's brought up right now will be included. And if members of the board aren't happy with that, we can deal with that in May through motions to remove them at that time. Jack Travelstead.

MR. TRAVELSTEAD: Bob, I'd like the PDT to consider a suite of options that deal with the caps. The motion presented one. I think it was the five-year average. I suggest they also look at a three-year average or others that they think are applicable.

MR. BEAL: We will do that. David Pierce.

DR. PIERCE: One of my points was already made. I think it is quite critical for us to have in the document the rules that apply to menhaden purse seining, specifically in the different states waters, and a little bit of history as to why those particular rules were implemented so we'll all be up to speed as to what the motivation was for those particular closures, those particular restrictions.

In addition, I think it would be very helpful if there would be some way in which we could, in this document, work in some recognition of the NOAA Chesapeake Bay program, and in particular the February 2004 document that relates to their ecosystem planning for Chesapeake Bay.

I think we need to know what this group has already considered for Chesapeake Bay since that's what we're talking about, so background information. The document itself is quite large. I would assume that staff could work with staff that was involved in developing this plan, so we'll know when next we meet and when we go to public hearing anyways on this addendum that we'll know what the objectives are relative to this particular plan and how it gels or doesn't gel with this particular motion.

MR. BEAL: Thank you, David. Other issues to be included in the draft addendum? That was much faster than I thought. A.C. Carpenter and

Jaime.

MR. CARPENTER: I'd like the plan review team to give in the document some --

MR. BEAL: Folks in the audience, the board meeting still is in session. If you are going to have some audience discussions, please take those out to the hall; and if A.C. could speak really loudly and override that, that would be great.

MR. CARPENTER: I'd like to have some treatment of the function of age and harvest and age availability within the bay. As I recall, I think at the workshop there was some indication that the zeros and ones prefer the low salinity areas or the lower salinity areas of the bay, and I'd like that information brought out in the fact that the fishery actually operates on the twos and threes. I'd like that brought out in the document in some fashion.

MR. BEAL: Thank you, A.C. Jaime Geiger.

DR. GEIGER: Mr. Chairman, briefly I think it would be very beneficial to have a brief description of the process as part of the minute notes from this board meeting as well as names of the current plan review team so we have it as a part of the record. Thank you.

MR. BEAL: Nancy can give you a list of the plan review team members right now.

MS. WALLACE: The plan review team members; I am the chair; Matt Cieri from Maine; Ellen Cosby from Virginia; Trish Murphey from North Carolina; and Doug Vaughan from the National Marine Fisheries Service.

MR. BEAL: Any other comments or issues to be included in the draft document that will be brought back to this board in May? Bruce Freeman.

MR. FREEMAN: Thanks, Bob. The issue I raised, I would like to see at least several alternatives. One is a cap on just the purse seine fishery, but also all gear. I think that's very important.

MR. BEAL: Vince.

EXECUTIVE DIRECTOR O'SHEA: Thanks, Mr. Chairman. I was wondering to the maker of the motion if perhaps it might be appropriate to give us a sentence or two to the plan team of what his anticipation or expectation was with

regard to the research component of the motion. It said to initiate a research plan.

MR. PETRONIO: I think quite a bit of that has been addressed already in our discussions with the TC, so I think it would follow the discussions that we've already had.

OTHER BUISNESS

MR. BEAL: All right, thank you. Seeing no other hands, I assume there is no other issues that could be included. Again, you will have a crack at this in May. Any other comments before the Menhaden Management Board?

MR. TRAVELSTEAD: I just want to take this opportunity to thank the technical committee for being with us today. We appreciate it very, very much. I think it has been very helpful to the board. We look forward to future discussions with you.

I also want to thank Nancy for all of her hard work. She has put a great deal of time into this to make this meeting a success, and thank you very much, Nancy. (Applause)

ADJOURNMENT

MR. BEAL: Great, thank you. We stand adjourned.

(Whereupon, the meeting adjourned at 12:55 o'clock p.m., February 9, 2005.)
