

**PROCEEDINGS
OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
HORSESHOE CRAB
MANAGEMENT BOARD**

**February 26, 2003
DoubleTree Hotel Crystal City
Arlington, Virginia**

ATTENDANCE

Board Members

Lew Flagg, Maine DMR
Bill Alder, Massachusetts Gov. Apte.
Gil Pope, Vice Chair, Rhode Island Gov. Apte.
Ernest Beckwith, Connecticut DMR
Gordon Colvin, New York DEC
Pat Augustine, New York Gov. Apte.
Brian Culhane, proxy for Senator Johnson (NY)
Jack Travelstead, Virginia MRC
Paul Diodati, Massachusetts DMF
Jerry Carvahlo, proxy for Rep. Naughton (RI)

Bruce Freeman, New Jersey DFG&W
Roy Miller, Delaware DFW
Eric Schwaab, Maryland DNR
David Cupka, South Carolina Gov. Apte.
Spud Woodward, Georgia DNR
Luis Barbieri, Florida F&W
Dennis Damon, Maine Senate
Tom Meyer, NMFS
Jaime Geiger, US F&WS

Ex-Officio Members

Gregory Breese, US F&WS, TC Chair

Brad Andres, US F&WS, F&WS Shorebird TC

ASMFC Staff

Megan Gamble
Bob Beal
Tina Berger
Vince O'Shea

Mike Lewis
Lydia Munger
Brad Spear
Nancy Wallace

Guests

Gerald Winegrad, American Bird Conservancy
Anne Lange, NMFS
A.C Carpenter, PRFC
Bill Cole, US F&WS
David Smith, USGS

Perry Plumart, National Audubon Society
Steve Meyers, NMFS
Ron Berzofsky, Cambrex
Carl Schuster, VIMS

There may have been others in attendance who did not sign the attendance sheet.

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- 1. Move to accept the report from the plan review team, to include the District of Columbia and Potomac River Fisheries Commission.** Motion by Mr. Cupka; second by Mr. Augustine; motion carried.
- 2. Based on the PRT recommendations that the states listed be granted *de minimis* status that include Maine, New Hampshire, Pennsylvania, District of Columbia, Potomac River Fisheries Commission, North Carolina, South Carolina, Georgia and Florida have met the requirement and be approved.** Motion by Mr. Augustine; second by Mr. Adler; motion carried.
- 3. Motion to approve the FMP review.** Motion by Mr. Augustine; second by Dr. Geiger; motion carried.

**ATLANTIC STATES MARINE
FISHERIES COMMISSION**

**HORSESHOE CRAB MANAGEMENT
BOARD**

**DoubleTree Hotel Crystal City
Arlington, Virginia
February 26, 2003**

The Horseshoe Crab Management Board of the Atlantic States Marine Fisheries Commission convened in the Washington Room of the DoubleTree Hotel Crystal City, Arlington, Virginia, Wednesday, February 26, 2003, and was called to order at 2:35 o'clock, p.m., by Mr. Robert E. Beal.

WELCOME AND INTRODUCTIONS

MR. ROBERT E. BEAL: If the members of the Horseshoe Crab Management Board could get seated, we'll go ahead and get started. Okay, I think everyone is relatively settled. The chairman of the Horseshoe Crab Management Board, who is Bill Goldsborough, was not able to make it.

We currently do not have a vice-chair of the Horseshoe Crab Management Board; therefore, according to the charter, one of the staff members at the commission steps in to chair the meeting, and luckily for everyone else on staff it's me. I got the short straw and I'm here.

BOARD CONSENT

I think everyone has the agenda in front of them. Okay, there was a revised agenda handed out today. It says "revised agenda" across the top. Are there any additions or deletions or anything else, adjustments for the agenda? Seeing none, does anyone have an objection to approving the agenda? All right, away we go.

The next agenda item is the approval of proceedings from May 2002. Any objection to approving those minutes from May of last year? All right, seeing none, it stands approved.

PUBLIC COMMENT

The next agenda item is public comment. We can take general public comment now; and as we go

through the agenda items, we can also take public comment at that time. I'm not seeing any hands in the back of the room right now, so we will just keep moving down the agenda.

ELECTION OF BOARD VICE CHAIR

The fifth agenda item is the election of a board vice-chair. I've heard that we do have someone who is willing to do it. I don't know if anyone else would like to nominate Mr. Freeman since he has said he is willing to do it.

MR. PATRICK AUGUSTINE: Thank you, Mr. Chairman. I nominate Mr. Freeman as vice-chair of the Horseshoe Management Board and close the nominations and cast one vote, please.

MR. BEAL: All right, thank you. Are there any objections to Mr. Freeman becoming the vice-chair of the Horseshoe Crab Management Board? Congratulations to Mr. Freeman. I think that you're the chair or vice-chair of five or six boards now so we'll be seeing a lot of you.

STATE COMPLIANCE AND LE REPORT

Okay the agenda item number 6 is the plan review team report on state compliance, as well as the law enforcement committee report. Brad Spear is going to walk us through that. I think he has a PowerPoint as well.

MR. BRADDOCK J. SPEAR: Thank you, Chair. States submitted compliance reports on February 1st or soon thereafter. The PRT reviewed these reports. I'm going to touch on just a few items that the PRT came up with in their review.

All jurisdictions did submit reports with the exception of District of Columbia. D.C. does not allow commercial landings of any types. They are required to submit compliance reports to close a loophole where other states won't be able to land horseshoe crabs in District of Columbia.

I have a couple calls in to Ira. I don't think D.C. is here today, but I will follow up and ensure that there were in fact no horseshoe crabs landed in D.C.

Another note, this compliance report was the first time that the law enforcement part of the compliance report was compiled into one report.

Our Law Enforcement Committee pooled all the states; and in addition to obtaining quantitative data, such as manhours of enforcement, they tried to get from states a qualitative analysis of enforcement, more of a description of possible issues, concerns, that are raised in individual states.

And Mike Howard, the coordinator for the Law Enforcement Committee, collected that information and I then put it into the state compliance report. If you turn to Page 2 and 3 of the supplemental materials that were handed out to you today, you can look over the law enforcement report.

There were a few issues raised in each of the states, but it is the PRT's recommendation or impression that none of these issues were substantial enough to take any action on.

For the most part, they were issues that were unique to the individual states. But if you had any concerns, if the board has concerns or questions, Mike is in the back to answer any questions.

Also of note, in years past New York had gone over its quota in landing horseshoe crabs, and the PRT was happy to see that in 2002 New York had accounted for the overages of the past year and was well under their quota, taking into consideration the penalty that they had taken on for this year.

The PRT has compiled and the tech committee has compiled state's coast-wide landings for horseshoe crabs. There is a table at the back of both the FMP review and the technical committee report, both in that packet that was handed out to you.

Just to note, the numbers for 2002 are preliminary at this point. However, the PRT feels that landings that will supplement the preliminary numbers will not put any states out of compliance. No states are too close to their quota at this point.

MR. BEAL: Jaime Geiger.

DR. JAIME GEIGER: Thank you, Mr. Chairman. Can we have an indication, Brad, of when we will have the final 2002 official landings?

MR. SPEAR: There's no clear date as to when we will get these numbers. States submit the numbers to NOAA Fisheries and it goes through an extensive review process by their statisticians. I have the impression that final numbers should be out in about two or three months.

They may trickle in at different times, but it will be a few months. The PRT, asks for these numbers during the following year's compliance review, so we have finalized the numbers for 2001 this past meeting.

MR. BEAL: Roy Miller.

MR. ROY MILLER: Brad, this may be just a minor correction, but I believe you said that New York exceeded their quota in 2000 and 2001, and then they corrected in 2002.

Yet, when I look at Table 1 in the back of the document, it shows New York being over in 1999 and 2000 and then well under their quota in 2001. I was just wondering which is correct.

MR. SPEAR: I would trust that the numbers in the tables are correct. I took that language from an older PRT report, but I will make sure that that gets corrected in this year's PRT report. Thanks, Roy. Just a final recommendation from the PRT, they recommend that no states be found out of compliance.

MR. BEAL: Mr. Cupka.

MR. DAVID CUPKA: Thank you, Mr. Chairman. I'd like to move that we accept the report from the plan review team.

MR. BEAL: Is there a second to that motion?

MR. LEWIS FLAGG: Second.

MR. AUGUSTINE: Mr. Chairman, point of information. Could we include the District of Columbia and the Potomac River Fisheries Commission in that because they're not considered states? We did that earlier when we accepted the PRT report, unless you don't want to put it on.

MR. BEAL: The only reason I'm hesitating is the mention that Brad made earlier that the District of Columbia has not submitted their report yet.

And, again, it's just their report is really to ensure that they have not removed their regulations that prevented commercial landings of any species. So with that on the record, I think we can go ahead and include the District of Columbia and the Potomac River Fisheries Commission. Eric.

MR. ERIC SCHWAAB: Thank you, Mr.

Chairman. Just a clarification. In the individual tables for the states that were compiled by the plan review team, there is an item that relates to closing the fishery if the cap is reached. It talks about that not having occurred in Maryland in 2002.

In fact, we did close our fishery. We did not reach the ASMFC mandated quota, but we reached our lower, voluntary, self-imposed quota; and as soon as we did, we closed our fishery so just for the record I wanted that noted.

MR. BEAL: Thank you, Eric. Are there any other comments on the motion to approve the plan review team's compliance review? Hearing none, are there any objections to approval of this motion? Seeing none -- Mr. Augustine.

MR. AUGUSTINE: A second motion, Mr. Chairman, based on --

MR. BEAL: Seeing no objections to the plan review team motion, that motion is approved. Now, Mr. Augustine.

MR. AUGUSTINE: And to the next point, based on the PRT recommendations that the states listed be granted de minimis status that include Maine, New Hampshire, Pennsylvania, District of Columbia, Potomac River Fisheries Commission, North Carolina, South Carolina, Georgia and Florida have met the requirement and be approved.

MR. BEAL: Do we have a second to that motion regarding de minimis states? Mr. Adler, thank you. Any objection to this motion regarding the de minimis states? Seeing none, the motion is approved.

Okay, the next agenda item is the FMP review and Brad will give us a quick summary of the updated review.

MR. SPEAR: Okay, just a quick note on de minimis. North Carolina, this year's landings were close to the threshold. Their previous year landings were a couple thousand below the threshold. There is, at this point, no need to come out of de minimis status, but just a note for the board.

PRT FMP REVIEW

Okay, a couple of highlights from the FMP review. Again, coast-wide landings were about 1.2 million. That was a 20 percent increase in landings from 2001. That also represented, still, a 58 percent

reduction from the reference period landings.

I won't go through the whole report. Again, you have that. It was handed out to you at the beginning of the meeting. If there are any questions or concerns, you can raise them at the meeting or you can get in touch with me at some point in the next week or two.

A couple highlights. One, Jim Berkson from Virginia Tech had submitted a proposal or submitted a request to Congress for funding to conduct several different research projects for horseshoe crabs.

I believe the initial request was for about \$800,000. Since then, it has been reduced to about \$650,000. The last I heard from Tom was it was signed off by both the House and the Senate, the Senate version, Senate bills, and now is in the NOAA Fisheries budget. Tom, can you say a word?

MR. TOM MEYER: Thank you, Mr. Chairman. Yes, it's in National Marine Fisheries Service's budget, 650k. The appropriation bill language does not indicate Virginia Tech at this point, so our budget people are checking into that.

We're pretty positive that that's where it was supposed to go, and that certainly will make grants a little earlier if it is to go to Virginia Tech, because Virginia Tech already has its proposals pretty much ready to go.

If, indeed, the language does not say "Virginia Tech", then it kind of opens it up to everybody, and we will be looking at proposals for horseshoe crab research from anybody that wants to submit it. We're hoping within the next week and a half to have a better idea of the language and move from there.

MR. SPEAR: And that research money is important for horseshoe crab research. Most of that would go towards the benthic trawl survey that the stock assessment subcommittee is relying upon to conduct their stock assessment. We hope that money gets pushed through for this year.

One other note, in November 2002, Fish and Wildlife sponsored a horseshoe crab and shorebird workshop. It was mostly an informational meeting to get the public educated and to hear from the public. Jaime, did you want to say a word about that?

DR. GEIGER: Thank you. I believe I updated the Horseshoe Crab Management Board at the last Horseshoe Crab Management Board meeting

about the workshop, but briefly it was held November 12-13 at Tinicum in Philadelphia.

I thought the meeting was very productive and informational. I want to congratulate the Atlantic States Marine Fisheries Commission. They had great representation there. Carrie and several of the other folks were there.

I was most pleased that we had a member of the advisory committee there as well. Bob Munson was there to represent the advisory panel and also participated in a panel discussion. The group examined a whole variety of information presented from both shorebird experts, horseshoe crab experts, the private sector, as well as Jim Berkson and several other folks.

It also came up with a series of recommendations and suggestions that were put together in a series of notes and files, and certainly we have those notes and files available for any of you all that may want them.

I believe those notes and files have been submitted to the technical committee for their use and review. I believe these notes and recommendations have been very valuable to several of the states in formulating recommended strategies to deal with horseshoe crabs as well as the ongoing issues related to migratory shorebirds.

We appreciate all the help, we appreciate all the assistance and hopefully the workshop was of good value for all those that attended. Thank you very much.

MR. BEAL: Thank you, Dr. Geiger. Is there anything else on the FMP review, Brad?

MR. SPEAR: Just a couple other things. The PRT had a few recommendations. I'll go over them quickly. The first was, if you look at Page 9 of the FMP review, there was still some concern of the PRT of live trade of horseshoe crabs.

This issue came up I believe from Florida, that this may be occurring, and it was discussed at the technical committee, Horseshoe Crab Technical Committee meeting. It is still not completely understood, the magnitude of this live trade.

The PRT just asks states if they become aware that this live trade of horseshoe crabs is growing, that you report it back to the PRT. We just ask that you monitor the situation.

The second recommendation regards the benthic

trawl survey. Again, if Dr. Berkson's proposal gets held up this year, the benthic trawl survey will still need funding from states.

So, the PRT asks states, because this is the number one priority for research from the stock assessment, that states and the federal government begin to plan to help fund this survey.

MR. BEAL: Mr. Colvin.

MR. GORDON C. COLVIN: Thank you, Mr. Chairman. In light of that recommendation and the comments that Tom Meyer made a few minutes ago, would it be helpful for this board to act on a motion today recommending that the National Marine Fisheries Service prioritize the 650k appropriation it is receiving to continue Dr. Berkson's trawl survey work for a period of years?

If that would be helpful and, Tom, if you think that would be useful, I would be happy to offer such a motion.

MR. BEAL: I think it would be helpful. It definitely wouldn't hurt anything. I assume the results of that motion would be the board chair and/or commission chair sending a letter to the National Marine Fisheries Service requesting that funding?

MR. COLVIN: Yes.

MR. BEAL: Tom, do you have any comments on that?

MR. MEYER: I guess my comment would be we need to check the language. Just because ASMFC is sending us a letter suggesting that we prioritize and then move it up to the front, we need to find out first what the language is before we can move. That is what we're waiting for and we hope to get that next week sometime.

MR. BEAL: Thank you, Tom. And, by the way, welcome back, Tom.

MR. PERRY PLUMART: Mr. Chairman.

MR. BEAL: Yes, one second Mr. Plumart. Gordon, in light of Tom's comments, would you like to make your motion or --

MR. COLVIN: Vince indicated he might have an opinion.

MR. BEAL: Vince O'Shea.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: I thought I saw the language of the signed bill -- not by the President, but what was passed out of both Houses and I didn't see any reference to Virginia Tech in it.

Be that as it may, I'm wondering if we could just say, if it is the sense of that committee, that if that language is not present -- we've thrown some terms around "chairman of the board" and "chairman of the commission," -- simply that the executive director would write a letter to National Marine Fisheries Service asking that those funds, that consideration be given to directing those funds to Virginia Tech and Dr. Berkson. I wonder if that would take care of this for us.

MR. COLVIN: That would certainly serve the intent of my bringing it up. I don't even know if a motion is necessary unless there is an objection to the idea, Mr. Chairman.

I just wanted to make sure that we acted on this so that the Service had the benefit of the board's view on it when they made decisions, and, frankly, when they went to wrangle with the bean counters.

MR. BEAL: Right. All right, thank you, Mr. Colvin. Based on the advice from the executive director and seeing no objections around the table, we will go ahead and take that route. There is one public comment. Perry Plumart.

MR. PLUMART: Thank you, Mr. Chairman. I'm Perry Plumart, Director of Government Relations with the National Audubon Society.

As one who has lobbied for the money -- and I've just passed around the actual language that is in the law, which provides the National Marine Fisheries Service with \$650,000 for horseshoe crab research, the language of the law itself does not direct that it go to Virginia Tech.

I understand that the budget people at NMFS perhaps need more guidance from that. That is something I can work with members of Congress to provide that guidance for Virginia Tech.

But right now there is money in the amount of \$650,000 available for horseshoe crab research that the intent was, I know from the people that I talked to on Capitol Hill, that it go to Virginia Tech for the trawl surveys.

I think it's just a matter of providing some clarification to the NMFS budget people to make sure that that goes. The letter from the commission would be helpful in clarifying that, too. But some people are talking about supplementing and that kind of thing, and maybe Berkson needs more than the \$650 but that money is there. It is law.

MR. BEAL: Great, thank you, Mr. Plumart. Mr. Freeman.

MR. PLUMART: If I may add, many times we in the conservation community, both Gerald and myself and others, have been asked to contribute money in one fashion or another. And as I said at the last meeting, I'm happy to go to anybody's state assembly or state legislature to lobby for more money.

I think the conservation community, along with Dr. Berkson and others, showed that we were able to go to Capitol Hill, make the case, and deliver more than half a million dollars for horseshoe crab research. I would just point that out.

MR. BEAL: Thank you. Mr. Freeman.

MR. FREEMAN: There was some discussion several board meetings ago of legislation that one of the Virginia legislators was trying to get appropriation for, I think it was 700, for this very same thing. Was this a result, Perry, of that effort or is that bill still pending?

MR. PLUMART: I'm sorry, say the question again.

MR. FREEMAN: There was mention by Virginia of one of their legislators -- I think it was a senator -- of putting a bill in for \$700,000 for horseshoe crab research.

MR. PLUMART: This is the negotiated amount.

MR. FREEMAN: Okay, this is the result of that.

MR. PLUMART: Right.

MR. BEAL: Okay, thank you. Any other comments on the FMP review? Mr. Colvin.

MR. COLVIN: One more brief comment on the subject of funding for research and monitoring,

Mr. Chairman. The states have been receiving some supplemental funding for the last couple of years, and we will get funding again next year for wildlife programs through the Department of Interior budget under a program now known as "State Wildlife Grants" or the SWG grant program.

Shortly, New York will be submitting its package of applications for financial assistance for, I think, the '02 SWG grant approp and we will be sometime in the next months submitting on the new approp, which is, regrettably, a little smaller than last year's. We will be including a horseshoe crab proposal within that which will include financial support for benthic sampling and for continued work in development of spawning area surveys.

I wanted to mention this because it's my sense that many of my colleagues on marine fisheries may not be as aware of the opportunity posed by the SWG program, which is perfectly aligned with what we're trying to do here with horseshoe crabs, as the target of opportunity to take advantage within their states to seek funding.

I would very much imagine that our friends and partners in the U.S. Fish and Wildlife Service will be very favorably disposed towards horseshoe crab work with these grant applications. Thank you.

MR. BEAL: Thank you, Mr. Colvin. I think that's a good point. The study that Jim Berkson has put together, his original proposal was for more money than \$650,000 that apparently will be going to Virginia Tech.

There may be the necessity to cobble together a few more dollars to round out that survey to continue the expanded geographic range that we're doing this year. So, we'll have to work with the researchers and see how much money they actually need and how much they have and put something together. Given that, is there anything else on the FMP review?

MR. PLUMART: Mr. Chairman.

MR. BEAL: Mr. Plumart.

MR. PLUMART: Thank you. I would just like to say, having gone to the shorebird workshop, I would just like to briefly characterize it because I think that many of the presentations there on a scientific basis were quite compelling that not enough is yet being done to protect both the horseshoe crab and the migratory shorebirds that depended on them.

Mr. Freeman's department of non-game species, in talking about the red knot, said that basically its very survival is on the brink, that if we don't do more to protect the horseshoe crab, that the red knot is in very serious trouble.

I think all of the studies that were presented, basically, the spawning surveys, the egg studies counts, the weight gains of shorebirds, that kind of thing, provided compelling evidence that we still need to do more for the migratory shorebirds and the horseshoe crabs, so I just think it's important to get a little characterization of that on the record, Mr. Chairman.

MR. BEAL: Thank you. I think the last agenda item probably -- there's an agenda item for consideration of New Jersey and Delaware additional restrictions in that area, and I'm sure some of those discussions will follow on that agenda item.

I think there is a couple more comments on the FMP review from staff and then we can move down the agenda.

MR. SPEAR: Just quickly, another one of the recommendations of the PRT was to support the technical committee and the tagging subcommittee with the work that the subcommittee is doing.

The subcommittee is in the process of developing a framework or guidelines for a coast-wide horseshoe crab tagging program. This is seen as a proactive measure to allow states guidance if they so chose to develop a tagging program within their state or to cater an existing tagging program to fit into a coast-wide tagging program.

So this is available to states or will be available to states, this framework. I think Greg will talk a little bit more about it from the technical committee's perspective, but the PRT, at this point, would just like to support their work on the tagging.

Another recommendation from the PRT was to continue to survey the biomedical communities. There's still not a lot known about the biomedical communities and their harvest. And in years past a working group of the technical committee had put together a survey and surveyed the biomedical communities.

I will be working with the working group again to develop another survey to try and get a little more information from the biomedical industry. Basically, we're just trying to get a handle on the mortality

associated with harvests of the biomedical community.

MR. BEAL: Mr. Freeman.

MR. FREEMAN: Yes, I just want to mention a few things relative to the biomedical. The original determination made by the technical committee and accepted by the board on the incidental mortality represented the loss of horseshoe crabs during the handling and transportation to the laboratories, which they were bled.

And depending on the various studies, the mortality ranged perhaps from as low as 2 percent to as much as 10 or 11 percent. However, it has come to our attention that there has been no consideration given of the mortality of the crabs that were harvested prior to when the laboratory took possession of them, such that there seems to be a considerable number, depending on the method used to harvest them, from 10 percent to as much as 30 percent that would be destroyed prior to the ones being selected for the biomedical.

Thus, with the amount that are being bled at the present rate, it would put us over the 57,500 number that we had. Our estimate ranges from about 60,000 to as much as 100,000 that can be attributed to the biomedical industry.

It's our opinion that we need to look very closely at this and move quickly to find what these numbers are. And it's our opinion that we need to start taking action relative to the harvest mortalities in the biomedical.

Also, I think it needs to be understood that by the industry standards, they're anticipating an 8 to 10 percent increase per year because of the increased demand for the lysate production. So this number could be, again, as high as 10,000, perhaps even more.

I think we need to -- I'm not sure we need to form another committee, but from the technical standpoint I think we need to look at this and move swiftly to contact the various biomedical laboratories and industry to clarify this mortality.

I'll speak more on this when we get into a later agenda item. We have a letter from both New Jersey and Delaware, from our commissioner and their secretary, expressing concerns and indicating the willingness of both states to reduce their harvest because of our concerns. I'd also like to touch again

on the biomedical.

MR. BEAL: All right, thank you, Mr. Freeman. Is there anything else on the FMP review? Mr. Beckwith.

MR. ERNEST E. BECKWITH, JR.: Thank you, Bob. I'd like a clarification on the monitoring requirement in the plan, specifically the "identify spawning and nursery habitat." We've done that for three years, and I'd like some clarification of how much more do we have to do? Do we have to do it every single year?

MR. BEAL: The requirement is every year now. I think if your delineation doesn't change from year to year, a notation of that in your annual report is probably sufficient, and we have the previous reports on record. We can go back to those to determine.

If we needed to evaluate the delineation, we could go back to the previous annual reports. Would that make the burden less on the state?

MR. BECKWITH: I'm not really quite sure what you said. You said if it didn't change, we wouldn't have to do it, but how do you know it doesn't change if you don't do it?

It seems to me that if you've made an effort -- and we've done it for three years and we don't expect it to change because it's related to a certain kind of habitat, beaches and whatnot, that if we did it for three years, that should be sufficient and perhaps we would not do it for three or four or five years and then pick it up again at some time in the future. But it seems like an awful lot of effort just to do the same thing over again each year.

MR. BEAL: Okay, Mr. Flagg.

MR. FLAGG: Thank you, Mr. Chairman. I wonder if it might be helpful if we referred this issue to the technical committee, since they are trying to do the stock assessment work, and get a recommendation from them as to how often perhaps this should be done on a state-by-state basis, and then we've got at least some technical recommendation relative to this issue. I think that might be helpful.

MR. BEAL: Okay, thank you. Mr. Freeman.

MR. FREEMAN: Just a comment. You would think that in fact the spawning locations would

be stable, but it has come to my knowledge that in New Jersey, as we're seeing beach replenishment occur, particularly in Delaware Bay, that areas that apparently had very few spawning horseshoe crabs now are becoming areas of major spawning concentration.

I understand Ernie's concern. You seem to go to the same places each year and the question is, well, we've got other things to do. There may be ways of reducing the amount of work, but just to indicate that if in fact areas close by to where spawning horseshoe crabs now frequent the beaches, you may find that if there is replenishment of those beaches by sand, you may create very favorable habitats and start to see areas more commonly used than have been in the past. But, it is certainly an issue I think needs to be more discussion and certainly the technical committee is the place to do that.

MR. BEAL: Thank you, Mr. Freeman. Greg.

MR. GREG BREESE: I'd just like to add that the two issues that are driving that request I think were related to our increased understanding of habitat, what constitutes habitat and where it is and our finding somewhat an even knowledge among the states.

So in part, it was trying to tighten that up so that we have a more consistent look at habitat. And the other is, as Bruce said, it's in a coastal environment. Conditions are changing, and the populations seem to be shifting or changing from time to time, too.

So it's not a static system in which you can simply delineate it over a three-year period, and say you're done for the next ten years, unfortunately. But the technical committee, I don't think, would have any problem with revisiting that and trying to provide some recommendations and guidelines.

MR. BEAL: Okay, as those discussions were going on, staff was going through the plan and it does require that annually, as Ernie said. So, therefore, if we were to change that, it would take a plan addendum or some other document to change that, but it will be relatively simple on something like this.

But does anyone object to the notion that Mr. Flagg presented of referring this back to the technical committee for some further input and report back to the board at their next meeting? All right, seeing no objection. There is another public comment, Mr. Winegrad.

MR. GERALD W. WEINGRAD: Yes, I'm Gerald Weingrad with the American Bird Conservancy. Just before we close out the thing on the FMP review, I wanted to be clear and make sure everyone is on what the statistics say that are in front of us, if I'm reading this correctly.

The overall percentage increase that I get from last year in the take of horseshoe crabs coastwide was from 1.008 million to 1.257 million, almost 250,000 more crabs, and that's about a 25 percent increase, if you're looking at the chart or if you have the statistics available.

I also note that the Delaware Bay portion of that, which I would attribute basically to Delaware, New Jersey and Maryland's harvest, went up very substantially, accounting for most of that harvest increase, the ones that we're most concerned with, if you will, because of the major shorebird dependence in Delaware Bay.

Delaware's landings went up 22.5 percent; New Jersey's, 7.6 percent, for a total of about 75,000 more animals taken. And Maryland's spiked from 170 to 278,000, which was a 63 percent increase of 107,000 animals, many of which, because of tagging surveys, seem to be from the Delaware Bay population that are taken offshore on the ocean coast.

I was wondering, in reading the February 2000 Horseshoe Crab Management Board's approved Addendum I, if New Jersey and Maryland had had more restrictive regulations, were to go beyond the 25 percent reduction over the base years and they were supposed to adhere to a voluntary cap, if you will, and it seems Maryland's was 211,000, so we have an overage, if you will, because Maryland landed 278,000. I don't know whether that has been noted anywhere or discussed.

And my only other point is in the FMP review, in the document that everyone has on Page 2 of the review, the status of the stock, while several items are noted about egg availability as well as the spawning survey, there is nothing in there about the longest survey that has been done, and that's the Delaware Trawl Survey, which reached record low levels this year in Delaware Bay, the 30-foot survey which is done through July.

Even with some statistical problems, it shows a very, very small catch of horseshoe crabs, in fact, one-tenth of the year before and the lowest ever recorded by a factor of five or more.

And there's also another Delaware survey for striped bass that is done later in the year, and no horseshoe crabs were taken in that for the first time ever, and that's not noted in that stock review, although the stock assessment status of the stock, it still says the status of the stock is unknown. I don't know whether those were considered or not.

MR. BEAL: Thank you, Mr. Weingrad. I think there was another hand in the back of the room. I think it was -- was it Dave Smith? If you can come on up to that microphone there, that would be great.

MR. DAVID SMITH: I suppose this is as opportune a time as any to make a comment -- and I appreciate the board's indulgence if I read a part of a summary of a memo that myself, David Smith from U. S. Geological Survey and Mike Millard, from Fish and Wildlife Service have put together in response to this question of recent trends in the horseshoe crabs in Delaware Bay. And if you permit me, I would read a short summary from this.

MR. BEAL: Dave, can I interrupt you for one second?

MR. SMITH: Yes.

MR. BEAL: I think the summary you are about to give will probably be more appropriate -- we have an agenda item dealing with potential additional restrictions in the Delaware Bay or in Delaware and New Jersey, so it would probably be more appropriate. If you could hold your comments until then, it would be perfect.

MR. SMITH: Sure will.

MR. BEAL: Thanks, Dave. Any other comments on the FMP review and we can move on down the agenda? Okay, seeing none, is there a motion to approve the FMP review? Motion by Mr. Augustine and a second by Dr. Geiger.

MR. AUGUSTINE: Thank you, Mr. Chairman. I move that we approve the FMP review.

MR. BEAL: Thank you. And the second, again, is by Dr. Geiger. Any objection to approving the FMP review? All right, seeing none, it stands approved.

The next agenda item is a shorebird technical committee update. Brad Andres is going to give that.

Just as a reminder to this group, the shorebird technical committee is a group formed and headed by the Fish and Wildlife Service. There's a range of -- individuals on that committee are not all Fish and Wildlife Service employees, obviously.

But this group is putting together a report to deal with the bio-energetic links between horseshoe crabs and shorebirds, and they're also dealing with shorebird populations, I think. Brad can give you a much more detailed report than I can.

SHOREBIRD TC REPORT

MR. BRAD ANDRES: Thank you, Mr. Chair. Yes, I thought I would start just to remind the board I was here last year updating you on the progress of this technical committee. And as was pointed out, it does have a host of individuals from university, community, a state biologist, and also then some federal biologists as well.

And sort of the real purpose of this is to assemble all the information we have on shorebird population status and also their dependency mainly through energetic requirements on horseshoe crab eggs, with the intent of, instead of getting a lot of this information piecemeal, that it would be here all in one place, and then we can really judge it on the merits of the science that is presented.

And after a few delays, our original intent was to actually have that report to hand to you two weeks before today, but as you know how these processes go, we're a little bit behind, but I am at least pleased to report that I think we'll be able to make a third week of May deadline.

I've now received most of the sections that are going to contribute to this effort. I also, if you recall, have an eight-member peer review panel that will take a look at what the shorebird technical committee puts forward, again, based on the science in these sections that are prepared, and then offer their evaluation much like was done with the horseshoe crab stock assessment.

So we have all the pieces now pretty much in place; and if I can just keep these last few sections moving on the time schedule, we, again, hope to have something by the third week in May. I guess I'd be glad to answer any questions on the process or content.

MR. BEAL: Thank you, Brad. Are there any questions for Brad regarding the shorebird

technical committee update? Mr. Freeman.

MR. FREEMAN: Is there any summary of the information you can provide us at this time?

MR. ANDRES: I'd be a little hesitant to because I feel like I'd be doing a disservice to a lot of people who have entrusted me with carrying this process through that peer review. I would say that the summary of the meeting that was held in Philadelphia would give you some feel.

I mean, you're well aware of the concerns. I think there are still some questions out there, and those questions really involve interpretation of weight-gain data in shorebirds and whether or not that's due to shifting and migration chronology, or it is indeed to their inability to make weights.

And one piece of information that we've managed to gather is some work that was done in the 1980s that may enable us to have a nice historical perspective on weight gain in the '80s versus the more recent years.

And maybe I will point out that most of the shorebird work, the intensive work only occurred in 1997. We don't have a lot of like early '90s data before the harvest really picked up to compare to.

So I'm hoping that some of those datasets will give us a nice perspective. And as you're well aware, Mr. Freeman, I think the information from South America is pretty compelling that there is something going on in these populations.

And with most arctic birds, the question is whether or not these are normal up-and-down cycles that most arctic species go through. We truly do have sort of a monotonic decrease in this population.

MR. BEAL: Thank you, Brad. And just to highlight, I think the peer review report will be, hopefully, ready the third week of May, and the anticipated schedule is to have that reported to this management board at our meeting week in June.

MR. ANDRES: Yes, that is our revised schedule, what we were shooting for.

MR. BEAL: Great, thanks, Brad. Any other questions for Brad before we move on? All right, thanks a lot Brad. The next agenda item is the technical committee update from Greg Breese.

TECHNICAL COMMITTEE REPORT

MR. BREESE: Thank you. A lot of this has been covered so I'll just go over the highlights. Please interrupt and ask questions if there are any. The main purpose of the last technical committee meeting was to look over the state compliance and plan review and to discuss the stock assessment work. And, as you already heard, the states were judged in compliance and the plan was reviewed.

One issue that has come up a few times has been that the plan was written a number of years ago and some new issues have come up, some new understanding has come up, for instance, related to the possibility of using horseshoe crabs for bait after they have been bled.

And some of the wording tends to lead one into a discussion about what was the concept and what is the policy or guidance that the plan gives. So at some point, it's felt by the technical committee that the plan probably needs some revision or an addendum needs to be put in place.

The technical committee is not sure what the threshold or where you would make that decision point nor how many word changes do you need before you write an addendum, but just for this committee to be aware that some of the wording is awkward and causing excess discussion, if you will, because of that.

Another discussion that came up over the plan review was monitoring Component A in the plan, which if you're not familiar with it, has a component of it which is to characterize a portion of the bait harvest in terms of sex and persoma width.

That had been put in because there was concern about what type of harvesting was occurring and what age structure or sex structure might be being taken. However, the states have had trouble complying with that.

There has been some question as to what the value of it is at this point in time as we've moved forward. The technical committee is asking the stock assessment committee to give them some guidance and recommendations as to how that data would be used in terms of its utility for a stock assessment and what level of effort would be needed to meet those needs.

We're going to be having them revisit that and be discussing that. Another question that has come up or a discussion that has been coming up continually has been the lack of a consistent bay-wide egg

survey.

That was intended to occur or be established a number of years ago, but our lack of understanding of the biology and how to effectively count eggs. The methodologies used was not at an advanced enough stage, it was felt by some of the states, to really warrant that and so instead a number of experimental designs have been put in place to try and get at that.

The technical committee and the stock assessment committee want to look at that with the states and see if a bay-wide egg survey can in fact be implemented at this time, so we're going to be working on that.

The tagging subcommittee did meet finally. A lot of progress was made on a number of issues. One thing that is in place, as Brad mentioned, was a draft coast-wide framework for doing a tagging survey.

Essentially that is in place enough that if the funding was available, we could be moving on that. One question and recommendation would be if the trawl survey is sufficiently robust with funding and other funding is available, we could move on that.

The major cost of that would be directed towards providing more capability in the Maryland Fisheries Office so that they could provide both the tags, the rewards and the tag return and recommendations to various partners who might be tagging. It would basically be an FTE in that office to give them that capability.

Over the short term, the tagging committee did identify a couple things to be working on. One is a website-based listing or collection of the different tagging efforts that are going on, with the idea that there would be increased coordination, there would be some ability to better improve or reduce the chance of having duplicate tag numbers, and there could be recommendations or guidelines from the Atlantic State Marine Fish Commission Tagging Subcommittee available for them and hopefully improve the tagging programs that are going on independently right now.

In addition, the Maryland Fisheries Office had wanted some guidance on how to decide whether to provide tags to programs that are requesting them. That was provided so that they now have some guidelines or essentially an application that people can use.

The technical committee shared Bruce's concern about the biomedical take of crabs, and that was the

genesis for modifying the questionnaire and sending it out again to get a better handle on topics, the biggest one being the on-board culling that may be occurring in the harvest of crabs for biomedical.

The technical committee also heard some preliminary information from Tim King, who is doing the genetic work on the horseshoe crabs, and it looks like, from the preliminary information, that there can be sub-populations defined which will have some impacts on management, and we'll need to be looking at that after that work is completed.

We also heard from a representative of the biomedical industry that there has been some success in trying to come up with an alternative to bleeding the crabs, and that may be hitting the market some time in the next few years, but probably not be having much of an impact for a number of years due to the need to verify that it's effective and get people to start switching over.

And the last thing is that based on the U.S. Fish and Wildlife Service's Workshop that was held in November at Hines that had been referred to earlier, two of the top recommended actions from that workshop were to hold another alternative bait workshop and to look at improved bait bag design.

There has been some information from some people and some fishermen that bait bag design has progressed quite a bit beyond the original design, moving towards a bait "flap", if you will, and reducing the need for horseshoe crabs dramatically even below a half of a crab to some have said as low as a sixth of a crab.

And there is also some experimentation that is going on independently with using the byproduct of the biomedical industry as a bait instead of whole crabs.

So it was felt that that would be a worthwhile endeavor, and Brad and I have been trying to work on securing funding for that to hold that workshop to see if greater efficiency in the use of crabs or even eliminating whole crabs as a bait source could be achieved. Thank you.

MR. BEAL: Thank you, Greg. Are there any questions for the technical committee? Mr. Augustine.

MR. AUGUSTINE: Thank you, Mr. Chairman. In reference to changes needed in the next addendum, did the technical committee actually review the wording changes in the FMP with the staff

to determine whether in fact it would require an addendum, and whether it's just a changing of the words or a description of what we're trying to accomplish in those areas that were noted here?

Would an upgrade of language change, without substantive changing of the meaning of what we're trying to do, do the job? So the question is did you talk to the staff about it, and did they come with a recommendation?

MR. BREESE: No, except for the staff that was there at the meetings. It has basically come up as we've been doing other business, and we've sort made a note that needs to be addressed at some point, but we are unsure exactly how and have not gone beyond the fact that we've said this wording is not.

MR. BEAL: In response, Pat, I think, staff obviously has noted there are some potential changes, and we'll go back and look what those changes are and see what the best way to get those in a new document is.

Obviously, if the board wants to initiate another addendum down the road to deal with other issues, these issues can be addressed as well. Any other comments? Bruce.

MR. FREEMAN: Thanks. Greg, you mentioned I think Tim Smith's work on stock discrimination. Do we have an indication when the final report will be ready for review or dissemination? I'm very much interested in what he has found out.

I mean, this was one of the major issues we were struggling with early on. I know he has been looking at crabs over quite a geographical range. I'd just be curious if we have any indicators or when the report will be ready.

MR. BREESE: I don't have a fixed date. He indicated in the next few months.

MR. BEAL: Anything else for the technical committee? All right, hearing none, Agenda Item Number 10 is where we are now, consideration of additional restrictions in Delaware Bay, Delaware and New Jersey. I think Roy Miller is going to introduce this issue; is that right, Roy?

ADDITIONAL RESTRICTIONS IN DE BAY

MR. MILLER: I would be willing to do that, Mr. Chairman.

MR. BEAL: Please do, thank you.

MR. MILLER: There were a couple of handouts. Brad, I'm not sure that all of them were distributed. I did receive the copy of Commissioner Campbell's letter. There is another letter from Secretary Hughes of the Delaware Department of Natural Resources.

The letters are complementary, essentially say the same thing. The letter I'm going to refer to would have gone out under joint signature, but the actual wording of the letters were constructed over the last couple days, and it was physically impossible to get the two department head signatures on the same letter; hence, there are two letters, one under the Delaware signature and one under the New Jersey signature.

Also coming around are, the already referred to today, some graphs of the Delaware Bay various trawl surveys that I'm going to discuss as well. I'll delay my comments on them until they make their way around.

MR. BEAL: I think we're also trying to get those on the screen up here.

MR. MILLER: Yes, thank you. Let me just preface my remarks, by way of introduction, to let everyone on the board know how we came to prepare this particular documentation and why we recommended that this be put on the agenda.

Our colleagues from the state of New Jersey have been in contact with us almost on a continual basis this winter, particularly after the aforementioned horseshoe crab-shorebird workshop sponsored by the U.S. Fish and Wildlife Service took place.

Beginning probably in January, we've been in almost constant contact with our colleagues in New Jersey. The purpose of this state-to-state discussion was to head off what we see as a potential problem and perhaps suggest a risk-adverse strategy for dealing with a potential problem.

The potential problem has already been alluded to today. I think the graphs have now been distributed to everyone. If I could refer you to the Horseshoe Crab Index 30-Foot Trawl Survey Results, I'll give everyone a second to find that in their packet.

It's also up on the board now. If you look at these trawl survey results, there isn't an obvious conclusion

that kind of jumps out at you. I know that Dave Smith, in the handout that he gave us and has not had a chance to talk about yet — I'm sorry, Dave — it talks about some of the caveats in this survey, so I'll quickly upstage him and say everyone acknowledges that the Delaware 30-Foot Bottom Trawl Survey is not the ideal gear for sampling horseshoe crabs.

It was a survey using fixed-station design that targets benthic finfish, particularly flounder and weakfish and so on. But, since it is a gear type that is dragged across the bottom of Delaware Bay and has been done so in a consistent fashion since 1990 using this same boat, same net, same crew, and until two months ago the same captain even, we feel there is some merit in consideration of its results for the capture of horseshoe crabs.

And when you look at this trawl survey index, the first thing you notice is a great deal of variation within years. But if you look for an overall trend in that, I think it's fairly obvious that there is a declining trend since the early '90s, particularly when you compare the more recent years, say, from '98 onward, to the years leading up to 1994.

And in fact when Stu Michels, who generated this graph — Stu is on the Horseshoe Crab Technical Committee — when he generated these graphs and drew a regression line, it was significant at the 0.007 level, so it is highly significant.

And the data that was used to generate this graph is on the next page. If I can refer you to the third page in that same package, you will see the results of the Delaware 16-Foot Trawl Survey. Now this is a smaller mesh gear designed to sample juvenile finfish; again, definitely not the most efficient gear in the world for sampling horseshoe crabs.

But there is a trend in this data, as well. However, its significance is what we would call "marginally significant", on the order of a P of equal to 0.06.

And then finally there is the 16-foot trawl, the same gear, young of year; that, is separating out the young-of-year component of the juvenile horseshoe crab. And although it would be tempting to say there is an obvious trend in that data, that is not a statistically significant trend that you see there.

Like it or not, the best information we have available on the local abundance of horseshoe crabs is from these two trawl surveys. At present, the beach counts are not of long-term nature enough to give us much confidence in interpreting the results.

This particular gear appears to be the only gear available to sample horseshoe crab populations during a long enough timeframe of the Delaware Bay population to give us any indicator of what that population may be doing.

Now it's clear that the horseshoe crab from this data are not increasing. It would be tempting to look at the 2002 estimate of the 30-foot trawl and say, whoa, things really look bad. But, again, the survey is not designed for us to focus on any one particular year, but only to look at for a trending purposes.

But it was obvious to both New Jersey and Delaware that something is going on here, and it's not promising for horseshoe crabs.

Now at the same time, this board has heard our colleagues from environmental groups and Audubon interests and ornithological interests and our non-game component of our resource agencies tell us the situation with the red knot, particularly the roofus sub-species of the red knot, and that also is not a very promising story.

And in the letter, which both the letter from Secretary Hughes of Delaware and in the letter from Commissioner Campbell of New Jersey, there is some information concerning a perceived decline in the red knot population and also some information that, to put it in a nutshell, the red knots are not making weight when they get to Delaware Bay.

In other words, they must reach a sufficient biomass and store enough fat to reach the Arctic nesting grounds after they fuel up in Delaware Bay. That's a critical choke point in their migratory habits.

So these two pieces of information, collectively and also, frankly, at the urging of environmental groups in both of our states, have lead the Delaware Division of Fish and Wildlife and the New Jersey Division of Fish and Wildlife to consider additional restrictions on the horseshoe crab harvest and also other measures related to horseshoe crabs and horseshoe crab spawning.

Hence, I would refer you to either the letter from Secretary Hughes or the letter from Commissioner Campbell. I'll read from the one from Secretary Hughes, since that's in front of me at the moment, and refer you to the bullet points on the second page of that.

And as a result of the conference calls between the

two agencies, the two agencies have decided to pursue the following in 2003.

Now, for our agencies to effect regulations at this late stage of the game that would impact the horseshoe crab spawning, which we anticipate will start in late April and continue into early June, would probably be prohibited from a time standpoint.

And so our agencies recognize that anything we do in 2003 would have to be done on an emergency regulation basis, which, in my state, we have the ability to implement emergency regulations, when we consider a resource to be in some peril, for a 90-day period.

And then during that period we would have to initiate the regular regulation process with appropriate hearings. New Jersey has similar statutory capability in this regard.

So let me briefly walk you through the bullet points, if that's all right, Mr. Chairman. May I?

MR. BEAL: Yes, please.

MR. MILLER: The first one was require the use of mandatory bait-saving devices and conch or whelk pots that use horseshoe crabs for bait to limit the demand on horseshoe crabs. This is kind of a no-brainer, and the industry has actually made great strides in this regard.

The second bullet point would be close all -- and that is including for bycatch, personal use and hand harvest -- horseshoe crab harvest from May 1 to June 7 in order to maximize potential horseshoe crab egg resources that would be available to migrating shorebirds.

That means just what it says, no harvesting. That would knock out the bulk of Delaware's hand-harvest season, and that's when New Jersey takes the bulk of their horseshoe crabs by hand from their back bay areas.

New Jersey does not harvest along the bay fronts, unlike Delaware. They currently restrict their harvesting to back bays and tidal creeks and so on. Also, dredging of horseshoe crabs would be prohibited during that period, as well.

So that's a fairly substantial measure that will only be enacted with, frankly, a great deal of pain and suffering in our two states on behalf of the horseshoe crab-harvesting industry.

The third major bullet point: we are recommending that the states of Delaware and New Jersey cap their horseshoe crab landings at 150,000 crabs per state to increase the likelihood of long-term sustainability of this resource.

Now that's an appreciable reduction. That is more than a 50 percent reduction of our present -- well, our 2002 harvest levels. And it's on the order of a 50 percent reduction of our quotas, as well.

The next bullet point: Restrict access on state and federal beaches from May 1 to June 7, and that is to allow the shorebirds to feed unmolested. In other words, restrict access by all humans, whether for collecting or for bird watching purposes or other purposes. Implement a public outreach project and educate citizens on the consequences of disturbing feeding shorebirds.

Next bullet point: Limit disturbance on shorebirds exerted by researchers to allow the shorebirds to feed unmolested. In other words, we're going to examine our collecting permits and make sure that the holders of those collecting permits are aware of our concern in this regard so they will minimize their time on the beaches and minimize their disruption of shorebird normal feeding activities.

Pursue additional restoration enhancement at horseshoe crab spawning areas in an effort to increase horseshoe crab recruitment and make shorebirds less susceptible to predation and environmental catastrophe.

The types of enhancement that you might envision would be setting aside areas, beach replenishment through offshore deposition of sand to beaches that are eroding due to sea level rise and other causes.

Procure funding from the biomedical industry and/or the ASMFC member states to support the use of alternative baits and trap designs to reduce the demand for horseshoe crabs. That, we hope, would ensure a consistent supply of bait for the eel and conch fisheries, which we know are going to be terribly inconvenienced by the actions we've taken.

And then require the biomedical users of Delaware Bay horseshoe crabs to return live animals that are harvested to Delaware Bay. Where this is impractical -- that is where the animals are shipped out of state -- require that these animals not be released to other waters, but that they be made available to the bait industry to help to support the bait industry.

So those are our intentions. Mr. Chairman, with your indulgence, I would ask my colleague, Bruce Freeman, if I have left anything out or if he has anything to add to this list of bullet points.

MR. BEAL: Thank you. I think we'll go Bruce and then I'll ask Dave Smith to finish where I cut him off kind of rudely a minute ago. And then in the interest of time -- this meeting is supposed to be done at 4:00 so we're running short on time; so if we can kind of move as quick as possible, that would be great.

MR. FREEMAN: Well, I have nothing to add to what Roy has indicated.

MR. BEAL: Well, that is quick.

MR. FREEMAN: That's it.

MR. BEAL: Dave.

MR. SMITH: I mean, thank you. Good to see you again. I would like to read this. It shouldn't take us over time. But in response to -- this debate has been going fairly hot and heavy regarding the status of horseshoe crabs in the Delaware Bay over the past few weeks.

And in the context of that debate, Mike Millard and I have witnessed some statements about the horseshoe crab that we think have been incorrect. And with that in mind, we drafted this memo to try to set the record straight with regard to some of the data that are out there that we think are not adequately being paid attention to.

Again, this is just in reference to the recent trends in horseshoe crab spawning. We are writing in response to recent rhetorical claims of precipitous decline and eminent extirpation of horseshoe crabs from Delaware Bay which have been stated in public forums and placed in public media.

These claims are based on a highly selective interpretation of horseshoe crab datasets and are made in the face of strong evidence to the contrary.

We reviewed ongoing surveys that were identified by the Horseshoe Crab Stock Assessment Committee as valuable for assessment of trends in the indices of spawning biomass and stock size. We also evaluated results from egg surveys.

MR. BEAL: Dave, let me try to interrupt

you once again kind of rudely.

MR. SMITH: Sure.

MR. BEAL: I think, you know, there's --

MR. SMITH: I was just going to read the first two pages.

MR. BEAL: Even that's kind of --

MR. SMITH: Too much?

MR. BEAL: Is there any way you can just kind of summarize each of these bullets in one or two quick sentences? I mean, I don't want to cut you off, but I think we're --

MR. SMITH: Well, can I read just the part about the spawning survey, which is the piece of information --

MR. BEAL: The next bullet there, sure.

MR. SMITH: Currently the Horseshoe Crab Spawning Survey is the most reliable source of information for assessing trends in bay-wide spawning stock biomass at the bay-wide scale. At the bay-wide scale, spawning activity has been stable from 1999 through 2002.

If you refer back to the trawl survey data, you see the real action occurred in the early '90s, prior to harvest restrictions that have taken place based on the fishery management plan in the late 1990. So we're talking, after that has taken place, what has occurred to this spawning stock biomass.

The data show that the spawning stock biomass has been stable, and the survey has been very precise in terms of what you get from biological surveys. However, there is uncertainty as there is with any biological dataset.

However, we can rule out changes in excess of 7 to 8 percent per year. The 95 percent confidence interval for a four-year trend ranges from 22 percent decline to a 26 percent increase. In this case, an increase of 26 percent is as likely as the decline of 22 percent.

Decisionmakers can choose to be risk averse and base decisions on the lower confidence limit of the trend estimate, the 22 percent decline. However, that choice would, be in our opinion, highly risk averse, highly risk averse.

The degree to which it is risk averse can be stated clearly. There is a 2.5 percent chance that spawning has been declining by 22 percent or more; only a 2.5 percent chance.

The data is telling us that the most likely pattern is stable spawning biomass in Delaware Bay in the recent years. Results from the spawning survey just simply do not support a conclusion of continued decline in horseshoe crabs that spawn in Delaware Bay.

MR. BEAL: Thanks, Dave, sorry to cut you off. We've got to keep moving here. Dr. Geiger.

DR. GEIGER: Mr. Chairman, I know that Dave did not have time to read this entire document, but can this entire document be made part of the official record of the board meeting, please?

MR. BEAL: Yes, it will, definitely.

DR. GEIGER: Thank you.

MR. BEAL: Given Roy Miller's presentation and what we've heard so far, what course of action would you like this board to take today, Roy?

MR. MILLER: Thank you, Bob. I'm prepared to offer a motion. I don't know if I've perfected all of the wording, but I would like to give it a try, if I may.

MR. BEAL: Please.

MR. MILLER: I would move that the Atlantic States Marine Fisheries Commission member jurisdictions, other than those who have already been approved as de minimis, cap their 2003 horseshoe crab harvest at the 2001 harvest levels.

Now don't write this down yet. I mean, it's fine to put that much, but what I'm going to say next don't write down yet because I haven't exactly come up with suitable wording.

I feel that some consideration should be given to New York, and that's why I directed a question to New York earlier this afternoon concerning what their actual harvest was in 2001.

Apparently they had to pay back an overage in 2001, and some consideration should be given to New York so they wouldn't be held to that overage reduced amount for 2003.

I don't exactly know how to word that. I was hoping that perhaps Gordon might have a suggestion in that regard. But, anyway, that's the gist of my motion, Mr. Chairman.

MR. BEAL: Okay, thank you, Roy. Just seeing the first half of the motion up there, I think we may have a process issue here. In order to have the commission mandate the states altering their quotas for horseshoe crabs in any given year, that would require a plan addendum.

Obviously, the board has the emergency rule process available to it if that's the course they choose to take. If the board chooses that course, they will have to justify the emergency part of the emergency action.

Obviously, the states of Delaware and New Jersey could request that the other states maintain their landings at the 2001 level without it being mandatory through the commission process.

But, to be consistent with the management program right now, the board currently doesn't have the ability, just through a motion, to mandate that the states alter their commercial quotas for horseshoe crabs.

MR. MILLER: Thank you, Mr. Chairman. We were aware of that, of course. I think the two suggestions that you just made were ones that also we discussed internally. The most that is on the board is not quite complete. It capped their 2003 harvest levels to the level of the 2001 harvest.

MR. BEAL: Roy, given my concerns regarding the process, I'm not sure if I can ask for a second on this motion since it doesn't -- if the wording of the motion were changed to request the initiation of an addendum to do this, then it would be in order; or, change the wording of the motion to make it a request rather than a mandatory thing through the commission, I think the motion would be in order, then.

MR. MILLER: I think I would like some direction either from you or Vince, Bob, as to what is the likelihood of an emergency action in this regard; and if that is unlikely, then I would change the wording to request an addendum.

MR. BEAL: I'm not sure what the likelihood of an emergency right now is. We've heard some limited information today on the Delaware stock that you presented, as well as Dave

Smith.

To ask for that mandatory change coastwide and declare it an emergency may be a little bit difficult for this board to justify at this time, is my interpretation.

I'm not sure if any other board members have a different interpretation, but I think a request at this time is probably more likely.

The original course of this board for 2003 was to hear the Shorebird Technical Committee report and then determine if an addendum to address the issues raised in that report was warranted or not.

So, I think this is changing the original course of the board a little bit, which is fine if that's the way the board wants to go, but it is a changing of direction.

I think to answer your question, I don't see an emergency rule or an emergency action that likely at this time, but obviously the board members can speak to that. Mr. Augustine.

MR. AUGUSTINE: Thank you, Mr. Chairman. It sounds as though or appears that Delaware and New Jersey have taken some very overt, direct action on this. And if it's possible for the two states to at least go forward with this immediately and implement it, that at least would reduce some of the negative impact that you're going to expect.

And, as Bob has suggested, it would seem it would be appropriate to include this in an addendum change as quickly as possible, if in fact that language that I suggested earlier from the suggestion of the technical committee in that language change, that might all be lumped together.

But it just seems to me that both states have taken some very aggressive action here; and unless other states feel we should go forward with this and change the direction that this board meeting is going right now, I would suggest we put this on the agenda right away at our next horseshoe crab meeting to move forward with an addendum.

MR. BEAL: Mr. Pope.

MR. GIL POPE: Thank you very much. I'm just curious as to why the states of Delaware and New Jersey would want Rhode Island to stick to its 2001 levels. I mean, we have done some conservation on our own, closing on moon tides and

so on and so on, and we have greatly reduced our catch, but we did that kind of on our own.

If the two states wish to do that, I welcome them to do that, but without any kind of either addendum or any kind of technical committee report that says that we all need to do that, then I don't see why this is necessary at this time.

MR. BEAL: Given those comments, Roy, how would you like to perfect your motion? Would you like to request the initiation of an addendum or would you like to request that the other states follow the lead of Delaware and New Jersey and voluntarily be more restrictive than the current ASMFC management plan?

MR. MILLER: I think I'd like to hear perhaps from my colleague from New Jersey on that issue.

MR. FREEMAN: I think, as indicated earlier, the timing here is awkward in that we would have hoped to have had the shorebird report. It's not quite ready.

Both Delaware and New Jersey are privy to information that the rest of the board doesn't have, particularly dealing with shorebirds, which leads us to the conclusion that we need to take some immediate action.

We realize that the states, certainly under the plan, can do that, and that's the option New Jersey and Delaware has taken. Realizing the concern from other states, some states such as Rhode Island already have taken action and have restricted their catch, are somewhat reluctant to be now bound into that.

I know it's putting Eric on the spot, but since the majority of the crabs, the great majority of the crabs in Delaware Bay seem to be a product of or at least influenced by the catch of New Jersey, Delaware and Maryland, whether in fact Maryland would be able to move back to a 2001 catch.

I think it would have probably the greatest impact, immediate impact, and then ask the other coastal states to take our concerns into consideration and try to hold their catch to the 2001 levels.

Then I think, after we get the reports from the shorebird committee, we may want to come back to the board and ask for additional actions in the very near future, probably not to affect the harvest this year, but certainly in the future.

Eric, is there any indication that Maryland's catch — and I know Maryland has reduced their catch more than 65 percent from the base period historically.

MR. BEAL: Eric.

MR. SCHWAAB: As I mentioned earlier, as you just stated, Bruce, we have a voluntary or self-imposed restriction significantly below our ASMFC-mandated quota.

Because of unforeseen circumstances in 2002, we went above that voluntarily self-imposed limit. We would, at a minimum, certainly go back to that self-imposed quota of 211,000 crabs. We're sympathetic to this concern and might be willing to go even so far back as 170,000.

So, you know, at a minimum, we would substantially reduce our landings back from what occurred in 2002 and might very well be willing, although I can't state with certainty here today, might be willing to go back to those 2001 levels, which was 170,000 crabs.

MR. FREEMAN: I think, Mr. Chairman, with that encouraging indication by Maryland -- realizing that Eric can't unilaterally do this himself; he's going to have to go back to other officials in his department -- that we work with Maryland officials to make certain that the catch is capped at those or close to those levels.

I think it will have a significant impact, certainly on Delaware Bay, where the birds tend to concentrate. I think from our standpoint, if Roy would agree, it's probably the best strategy at the present time that we could hope to get.

MR. BEAL: Thank you, Bruce. Roy.

MR. MILLER: Thank you, Mr. Chairman, and thank you, Eric, for those encouraging remarks. I think Bruce has hit upon perhaps the proper course of action for us, in that our respective states, department secretary and commissioner, will no doubt be in contact with Maryland's department secretary with a recommendation in this regard just to follow up not the commitment but the suggestion made at this particular meeting.

And in consideration of Gil Pope's suggestion concerning states outside perhaps the immediate influence of the Delaware Bay horseshoe crab population, there is some uncertainty concerning how far north and how far south that population migrates

or is it primarily inshore and offshore.

So I think Gil's concerns are legitimate and we're sympathetic to that. Perhaps it would be best if we just have a general recommendation to the member states of the commission, that in recognition of the sacrifices that are likely to be made within the states of Delaware and New Jersey to address a perceived problem in horseshoe crab and shorebird abundance, if the other states would give consideration to capping their harvest levels to the 2001 level, that would probably be the best we can hope for from this meeting.

MR. BEAL: Thank you, Roy. Given that statement, I think there is probably no need for a motion on this. I think the board has probably heard the message from New Jersey and Delaware and Maryland, their willingness to go back and look at the situation within their state.

I think the other states have heard the message loud and clear that you folks are being a lot more conservative and are requesting that they follow course.

That recommendation or request is a little bit outside the commission process since it is voluntarily being more conservative than a commission plan, so I'm not sure that a motion is in order here. I think your message is carried to the other states, if you're comfortable with that approach. Dr. Geiger.

DR. GEIGER: Thank you, Mr. Chairman. First of all, Fish and Wildlife Service wants to congratulate the states of New Jersey and Delaware for their leadership in horseshoe crab conservation. Certainly, I think that they have gone the extra mile to assist in this very difficult process.

And, certainly, the service also supports, highly supports recommending that the coastal states attempt to cap their harvest to 2001 levels.

I would also make the statement that it is almost imperative that we have this shorebird report, Brad, by May. I would urge that the Shorebird Advisory Group make all due and diligent effort to ensure that this management board has that report as soon as feasible. I would highly make that recommendation.

I would also strongly suggest that based upon the receipt of that report, that we do indeed have a Horseshoe Crab Management Board meeting -- I'm assuming now it's scheduled for June -- and that this issue again be on the agenda.

Again, I think, again, many of you do not know what may be in this shorebird advisory report. We did get somewhat of a preview at the workshop, but we are very concerned about the status of shorebirds. And, certainly, I think it's going to be on our radar screen to take this issue very seriously at the next board meeting. Thank you, Mr. Chairman.

MR. BEAL: Thank you. I have Mr. Travelstead, Mr. Colvin and then I'll get back to Roy Miller.

MR. JACK TRAVELSTEAD: Is it correct to assume that all of the information that has been presented here by Delaware and New Jersey and the letter that was partially read to us will be reviewed by the technical committee, and that some additional advice will be coming from them relative to the actions that Delaware and New Jersey want to take or will take?

MR. BEAL: If the board would like to make that request, we can definitely forward this to the technical committee.

MR. TRAVELSTEAD: I would like to make that a request.

MR. BEAL: Is there any objection to that request to forward that to the technical committee? All right, Mr. Colvin.

MR. COLVIN: I wanted to just highlight one other timing nuance here. It is very evident, from what we've heard, that Secretary Hughes and Commissioner Campbell and their staff have been very actively communicating and collaborating to address what is clearly an important natural resource problem to the two states and have come up with an emergency plan of action that I think we all recognize is the result of that important collaboration, partnership and attention to an emergency situation that justifies regulatory action in those two states.

Regrettably, the rest of us and our agency secretaries and commissioners were not part of that dialogue; and as a consequence, we arrived here to learn of this information only today, in my case.

Now the other element of timing difficulty here is that, certainly in our case and I suspect in the case of other states, we have already met with our fishing industry people to discuss the management of the horseshoe crab quota for 2003.

In our case, our industry was substantially relieved to hear that they have concluded the payback of the overages and looked forward to some increase in the harvest. And, that makes the possibility of raising here, at the beginning of March, a change all the more awkward and difficult.

If we're in this kind of a situation, we need to be sensitive to those sorts of timing and communication issues within the states and try to have that kind of stuff vetted much earlier than this. Thank you.

MR. BEAL: Thank you, Mr. Colvin. Mr. Miller.

MR. MILLER: Bob, I wondered if it would be too much to request perhaps a letter to the member states from the ISFMP board chair or the Horseshoe Crab Board chair laying out the recommendations that have been discussed this afternoon to the coastal states.

And, of course, we all recognize the very things that Gordon talked about, and we do apologize for the last-minute approach to this particular problem.

Again, it was one of those situations where wording changes were still being revised as of just a couple of days ago, and this is the earliest opportunity we had to bring it before the commission.

But my second recommendation, if the rest of the board views favorably the idea of a letter to the member jurisdictions would be, as has already been suggested, to put on the June agenda, of course, the shorebird peer review information, but as well consideration of perhaps initiating the addendum process which could address the -- if the problem is perceived to carry over into 2004, and I'm assuming it will since this is such a long-lived species -- pursuit of perhaps some reduction in allowable harvest through the addendum process. Thank you.

MR. BEAL: Okay, thank you. I think the issue of scheduling a horseshoe crab meeting in June and having the report given is something we will do. I think the immediate follow up, as planned, is the discussion of whether we should initiate the addendum process based on that report. That's going to be done.

As far as the letter goes, given the message that was sent obviously all the members states are around the table today, I'm not sure. I'd like to hear a couple other folks comment on that real quickly and we need to wrap this up relatively quickly. I think David

Cupka had his hand up.

MR. CUPKA: Thank you, Mr. Chairman, very quickly. It wasn't to the point of the letter, but I noticed one of the measures that were outlined in the letter we got from Secretary Hughes calls for work on restoration or enhancement of spawning areas and all.

And for Roy's information, I just wanted him to be aware that we've done quite a bit of work in South Carolina using S-K funds in looking at requirements of both spawning and nursery areas, such things relative to beach slope and settlement or grain size and that kind of thing.

So you may want to put some of your staff in touch with some of our staff to get a copy of that report. It may be of some help to you.

MR. BEAL: Okay, how about this approach? Does anyone on the board feel uncomfortable with a letter -- I'll work with Bill Goldsborough, the board chair -- highlighting the changes that New Jersey and Delaware have made and noting the request of those two jurisdictions that other states follow suit and cap their fisheries at the 2001 level? Does that make anyone uncomfortable at the board level? Mr. Travelstead.

MR. TRAVELSTEAD: Yes, it makes me uncomfortable because none of this information has been looked at by the technical committee. I would feel very comfortable if the technical committee had looked at the sum of all the information that has been presented here and said, yes, this is something we need to go forward with an addendum. Then, absolutely, then I think a letter would be appropriate, but not at this point.

MR. BEAL: Mr. Carvalho.

MR. GERALD CARVALHO: Yes, Mr. Chairman, we would be uncomfortable because Rhode Island took it upon itself not to impose a 25 percent reduction but a 90 percent reduction. A letter of that sort would imply the lack of recognition of the effort that Rhode Island has made.

If we had an opportunity to talk about this and had this information ahead of time, the rest of the board would recognize the steps that Rhode Island has taken.

MR. BEAL: Given those comments, Roy, it doesn't sound as if the board is very receptive to endorsing a letter coming out from this management

board.

Obviously, if the two jurisdictions wanted to get together and the two secretaries from those states wanted to get together and send a letter to the states that request commensurate action within other jurisdictions, that's appropriate.

Given the comments around here, I'm not sure where else to go with this today, Roy. I think, obviously, as Mr. Travelstead requested, we will forward these measures to the technical committee for review, and then we will hear the shorebird technical report, and the board can consider if an addendum is appropriate at that time. Is that okay?

MR. MILLER: Thank you.

MR. BEAL: Thank you. Mr. Colvin.

MR. COLVIN: I would just point out, Mr. Chairman, this didn't really come up because we didn't get that far, but if such letters are sent, it would be helpful if they explained to the various states from the entire range of horseshoe crabs how the action being requested specifically addresses the resource problem in Delaware Bay. Thank you.

MR. BEAL: Thank you. That concludes the agenda items we have right now.

MR. CARL N. SHUSTER, JR.: Carl Shuster, Virginia Institute of Marine Science. Over and beyond our interest for the shorebirds, which I'm sure the states of Delaware and New Jersey will handle, I want to speak in terms of what we know about the horseshoe crab.

I've distributed a status report for each of the members to look at. What I would like to do is pick up with what Mr. Miller so adequately described, the report done by one of my students, Stewart Michels.

It only shows what happens on the Delaware side of the bay, not the New Jersey side. And most importantly it, and I stress most significantly, it says nothing at all about what is happening out on the Continental Shelf.

We're dealing with a population that can be described as the Middle-Atlantic Bight population; certainly, from Atlantic City southwards to the entrance into the Bay and northward from Chincoteague and certainly from Ocean City, Maryland, into the Bay, so that we must keep in mind, then, that this is a wide-ranging population

which moves in and out of the bay.

Just because we see declines in the bay itself, which are significant in terms of the birds, let us not say that it's significant in terms of the total horseshoe crab population in the Middle Atlantic Bight.

There are two research things that are coming up that are rather exciting for me, and I think will help us unravel some of these problems.

One is an extensive tagging program that is going to be mounted shortly this year by Dr. David Smith from the Geological Survey. And, secondly, hopefully Virginia Tech will be able to continue their studies out on the Continental Shelf, not only in the Economic Exclusive Zone, the Sanctuary, but also in the state waters to give us a better idea of the stocks on the Continental Shelf. Thank you.

MR. BEAL: Thank you, Mr. Shuster. Mr. Plumart.

MR. PLUMART: Thank you, Mr. Chairman. I think that the states of New Jersey and Delaware and Bruce Freeman and his staff and Roy Miller and his staff and their secretaries deserve an enormous amount of congratulations because they had the courage to take a look at the data that was presented at the Fish and Wildlife Service Workshop and again at another workshop several weeks ago that was held in Dover, and they made the tough fisheries management decision.

They took a look at the scientific evidence and they took a look at the scientific data and they made the tough conservation management decisions.

They took a look at the scientific evidence and the data that for some reason the Fish and Wildlife Service, in the last three months, couldn't compile and present for you here today, and they made the tough political decision.

And they offered, I think, a reasonable approach that I hope that will be seriously considered, and their request will be seriously considered by the other states. In some sense, Dr. Schuster and some of the other evidence that was presented to say that there's enough biomass for the horseshoe crabs.

Well, yes, there might be enough biomass for the horseshoe crabs, which I don't believe, but if there is, that's still a death sentence for the birds because you need a super abundance of horseshoe crab eggs for the birds.

And I think that, again, they're to be commended for making the right, the tough conclusions on fisheries management, on conservation and the political decision which is something that I think that there might well be some ramifications for them in those states. I think that, you know, they're doing the right thing, and I hope that we can move forward with this addendum at the next meeting. Thank you.

MR. BEAL: Thank you. I think we have one more public comment and we'll wrap this up. Yes, sir.

DR. RON BERZOFSKY: Thank you. I'm Dr. Ron Berzofsky, technical director at Cambrex Bioscience. We are a biomedical user of the horseshoe crab. For the record, I'd like to correct statements that were made earlier today relative to the perceived mortality of the biomedical harvest.

It is not as high as 30 percent, sir. There is no pre-culling of horseshoe crabs on the boats that harvest for Cambrex Bioscience.

There will be a published report that has been sponsored and conducted independently by Virginia Tech. We've had representatives from Virginia Tech on our boats. They will assess that mortality at 6 to 7 percent. There is no pre-culling.

I'd like to pledge our cooperation to the technical committee to come up with scientific rationales for what the true impact on the biomedical industry is on the horseshoe crab population, but we are proactive in maintaining this population. We are not the source. Thank you.

MR. BEAL: Thank you for your comment. Dr. Geiger, and I think that's the last one and we're done here.

DR. GEIGER: Thank you, Mr. Chairman. And, again, I appreciate the comments of all the speakers, and certainly we would welcome the contribution and interest of the biomedical industry, especially given the situation that we may have genetically distinct populations or bay-specific populations that certainly affect not only how we harvest, but how we return crabs to the environment.

Mr. Chairman, I would request, also given the importance of Tim King's genetic work, that the technical committee work to see if we can get Tim to give a presentation to this management board also in June on the latest results of genetic analysis.

I think they'll be very worthwhile and important as we consider the future development of the fisheries management plan. Thank you, sir.

MR. BEAL: All right, thank you. I think that's it for the Horseshoe Crab Management Board.

(Whereupon, the meeting adjourned at 4:20 o'clock p.m., February 26, 2003.)

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