

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

**February 8, 2005  
Radisson Hotel Old Towne  
Alexandria, Virginia**

## ATTENDANCE

### Board Members

Lew Flagg, Maine DMR	Tom Fote, New Jersey Gov. Appte.
Sen. Dennis Damon, Maine	Roy Miller, Delaware DFW
Pat White, ME Gov. Appte.	Bernard Pankowski, proxy for Sen. Venables (DE)
John Nelson, New Hampshire DFG	Michael Kaufmann, Pennsylvania FBC
Dennis Abbott, proxy for Rep. Blanchard (NH)	Gene Kray, proxy for Rep. Schroeder (PA)
G. Ritchie White, New Hampshire Gov. Appte.	Pete Jensen, Maryland DNR
Dan McKiernan, Massachusetts DMF	Larry Simns, proxy for Sen. Colburn (MD)
Vito Calomo, proxy for Rep. Verga (MA)	Bruno Vasta, Maryland Gov. Appte.
Bill Adler, Massachusetts Gov. Appte.	Ira Palmer, District of Columbia FWD
Mark Gibson, Rhode Island DFW	A.C. Carpenter, PRFC
Everett Petronio, Jr., Rhode Island Gov. Appte.	Jack Travelstead, <b>Chair</b> , Virginia MRC
Eric Smith, Connecticut DEP	Kelly Place, proxy for Sen. Chichester (VA)
Fred Frillici, proxy for Sen. Gunther (CT)	Ernest Bowden, Jr., Virginia Gov. Appte.
Lance Stewart, Connecticut Gov. Appte.	Preston Pate, North Carolina DMF
Gordon Colvin, New York DEC	Damon Tatem, North Carolina Gov. Appte.
Brian Culhane, proxy for Sen. Johnson (NY)	Jaime Geiger, US FWS
Pat Augustine, New York Gov. Appte.	Anne Lange, NMFS
Bruce Freeman, New Jersey DFW	

### Ex-Officio Members

Gary Nelson, Technical Committee Chair	Jim Gilford, Advisory Panel Chair
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### ASMFC Staff

Lydia Munger	Bob Beal	Vince O'Shea
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### Guests

Ed O'Brien, Striped Bass AP	Beth Versak, Maryland DNR
Bob Evans, MWA	Rick Robins, Chesapeake Bay Packing
Kenny Keen, Maryland DNR	Dan Dugan, Delaware DNR/RFA
Dick Brame, CCA	Harold Mears, NMFS
Harry Hornick, Maryland DNR	Peter Eldridge, SERO, NMFS
Eric Duvell, Maryland DNR	Howard King, Maryland DNR
Chris Salp	Bill Cole, US FWS
Jeff Livingston, Maryland DNR	Jon Siemien, DC Fisheries & Wildlife

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

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## **MOTIONS**

**No motions were made.**

**ATLANTIC STATES MARINE  
FISHERIES COMMISSION**

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

**WELCOME & INTRODUCTIONS**

**CHAIRMAN JACK TRAVELSTEAD:** Good morning and welcome to the Striped Bass Management Board. Everyone has a copy of the agenda. I have one change to the agenda. We can eliminate Item 4. It was placed on the agenda in error. Are there any other changes to the agenda? Seeing none it will stand with that single change.

**BOARD CONSENT**

You were also provided with a copy of the November 10<sup>th</sup> minutes of the meeting held in New Castle. Are there any changes to those minutes? Seeing none, they will stand as printed.

**PUBLIC COMMENT**

At this point we'll take public comment. Is there anyone in the audience who wishes to make any comment at this time? Yes, sir, come on up, Mr. Price.

**MR. JAMES E. PRICE:** Good morning and thank you, Jack. My name is James Price, President of the Chesapeake Bay Ecological Foundation, and I've testified before this board I guess numerous times on the subject of striped bass health.

It's probably been five or six years ago since I've first come here and told you about the conditions that existed in the Chesapeake Bay. Well, over the past year I've been working on a project looking at the health of the migratory population, and I'm sad to report I see very little difference in the nutritional state and the overall health of the migratory fish over 28 inches.

This work is being done mostly out of Oregon Inlet, and we're trying to look at about 500 fish during this winter season. And, where some of this overlaps with the menhaden problem and the Commission in general is trying to I think focus a lot on the Chesapeake Bay as that being the problem with striped bass and menhaden, when I think the Commission ought to reconsider and do a little work on its own and look at what is going on up and down the coast, because I don't know of anyone else who has spent the time working on this subject looking at the condition of the fish in the bay and along the coast besides Dr. Overton and myself.

I'm here to really tell you that this is a coastal problem, and the condition of these fish are very similar along the coast as far as the amount of menhaden we're finding in their stomachs, a wide variation in weight and length, a wide variation in the types of prey that we're finding in the stomachs. So I just wanted to let you know that it's more of a coastal problem than a Chesapeake Bay problem. Thank you.

**CHAIRMAN TRAVELSTEAD:** Thank you. Anyone else with to speak at this point? Okay, seeing none, we'll move on to Item 5,

Technical Committee report. Gary, you're going to take us through most of this.

## **TECHNICAL COMMITTEE REPORT**

MR. GARY NELSON: Thank you, Mr. Chairman. The first thing I'm going to go over is the request by the board to review the Oceana request to the New England Fisheries Management Council based on the analyses that Gary Shepherd did looking at striped bass discards.

The technical committee at the last meeting reviewed Gary Shepherd's analyses. What Gary did was basically estimate discards of striped bass based on observer records and vessel trip report data.

He used ratio of striped bass discards observed to the aggregate kept weight of species targeted by the multi-species groundfish fishery. Since there were some seasonal and geographic variation, he basically grouped data into statistical areas and month cells and estimated discards for each cell. Then by summing, overall the cells gave the total estimate of discards.

The technical committee reviewed the analysis and pointed out some deficiencies in it, not Gary Shepherd's fault. Some of the statistical cells, particularly in the Mid-Atlantic region, weren't covered by observers in some of the months and statistical areas, so the estimate of 289,800 or so pounds that he estimated was probably an underestimate based on his analyses.

Pertaining to the statistical Area 521 of the Great South Channel where a majority of the discards seem to occur in October 2002, the technical committee did agree that there were plenty of data there to estimate the discard levels properly.

In a minute I'll get to the question whether these discards are significant or not, but I'm just reviewing a little bit what the technical committee had concerns about. Another concern that the technical committee had was that 2002 was only one estimate, and a lot of us wondered if this was a low-end estimate or a high-end estimate.

We would need to petition National Marine Fisheries Service to ask them to do more analyses in order to find out whether this is a high or low estimate. And that would be a concern if this was a low estimate, and there may be even higher discards found in that region.

His analyses also assumed that all the fish discarded dies, which may not be true. There have been reports -- we use for trawl surveys in our estimate of discards, using tagging data, a percentage of about 35 percent die which may or may not be true, but it seems to be the best estimate we could come up with. So all of the 289,000 pounds are assumed -- all those fish are assumed to die which it could be less if they are surviving.

But overall the technical committee agreed that the analyses were acceptable, and so we went forth with trying to determine if these discards are significant or not. And the question whether they're significant or not, there were two groups in our technical committee that as always, usually, thought they were significant from different perspectives.

In terms of if you compare the discard estimate to the coastal commercial quota for some states, that discard estimate actually exceeds the commercial quota for some states. I'm showing up here on the graph, that red line represents the 289,000 pounds. And you can see that for states like Rhode Island, Delaware, Maryland and Virginia, they actually have a lower quota than the discard estimate was made to be.

If you compare it to the recreational harvest, only one state, New Hampshire, actually has a lower harvest -- these are in terms of pounds -- than the discard estimate was estimated to be. So from that perspective, the discard estimate is higher than in some states' quotas.

But from an assessment point of view, it's a little different. What I'm showing up on this slide are the estimates of harvest and our estimates of discard losses for year 2000 from which Gary Shepherd came up with separate discard estimates using the NMFS data, of course.

What it shows here is the harvest and discard losses for both the recreational and commercial fishery. If you look all the way to the right, these are the discard losses in numbers. Before it was in pounds.

You can see that our 2002 estimates of discard losses, the majority were from the recreational fishery at 1.1 million fish, and the commercial fishery was 168,000 fish. Now, we estimate commercial discard losses indirectly, using tagging data, so the discard estimate that NMFS came up with we think is included in our estimates.

It's not a separate estimate. Even if it was, we wanted to see what would happen if you added that 289,000 pounds to the current catch-at-age matrix which we used in the assessment to see what would happen to the F.

And what I basically did was just came up with a range of the estimate of the number of fish using weight of an average individual from 10 to 20 pounds, and I got -- this is in the lower part of the graph -- 14,500 fish to 29,000 fish.

And if you just assume this was discard in addition to what we already estimate, it would be only 0.4 to 0.8 percent of the total number of

losses in 2002. Now if you take these numbers that NMFS came up with, the pounds, calculate the numbers which I did here and then apportion those over age classes and you put it into the catch-at-age matrix and ran the VPA again, there was little change in the F.

There was basically the -- adding those fish, the 14 to 29,000 fish is pretty insignificant to the assessment results. So it changed at the third or fourth decimal place on the F value. So from an assessment point of view, the discards, if they were added, is not a significant -- does not have a significant effect on the status of the stock.

As I mentioned earlier, we do estimate indirectly the discards for the commercial fishery so they are included in our assessment. And, again, the technical committee has determined that the discards are significant, depending on your point of view, but it does not affect the assessment results if you added them into the stock assessment.

And the question was if the discards were determined to be significant, what could we do about it? And the technical committee discussed -- since the striped bass discards in the Great South Channel seem to be corresponding to their foraging on herring schools during their spawning, the technical committee talked about time and area closures -- that would be one way -- or even reducing the tow time for some of the trawls, but a lot of us weren't familiar with the fisheries up there so this is all we could come up with. That's it.

CHAIRMAN TRAVELSTEAD: Questions of Gary on this issue? This is an action item. We are expected to comment to the New England Council and to Pat Kurkul on this issue. Gordon.

MR. GORDON C. COLVIN: I think my comment is related or it's really more of a

question to staff I think because I'm trying to envision the context in which this issue is being examined.

It's my recollection that Amendment 6 has a provision that calls on the board to develop an active plan leading to the development of measures to be implemented as compliance measures by states to manage discards. I'm wondering where we are on that, what's the status of its development and the schedule for its development and how does today's report relate to that?

MR. ROBERT E. BEAL: Gordon, if you look at the fifth bullet under Item Number 5, it's progress update on bycatch data collection program, that's actually the addendum that you are referencing. It probably would make some sense if I give kind of the quick report as to the status of that right now, and we can take that in a more logical order, I guess.

The technical committee, at their meeting a couple weeks ago, discussed bycatch data collection program -- even to back up further. As Gordon mention, Amendment 6 requires this board to develop an addendum to collect striped bass bycatch information or to develop mandatory data collection programs for the states to implement to collect bycatch information for striped bass.

That addendum is to be developed in the second full year of Amendment 6 implementation, which is 2005, so essentially the amendment that this board established put in the requirement for this board to continue on the bycatch path and develop this addendum during the course of this calendar year.

So the technical committee got together. They reviewed what data is currently be collected, had some questions regarding once the ACCSP is fully implemented, what will that program

look like?

Staff is currently pulling together the data elements that the technical committee would like to see as well as a comparison of the data elements that the ACCSP program will collect once fully implemented.

That matrix will be put together, and the tech committee will be getting back together the last week of March and reviewing that matrix to determine if that is sufficient. In other words, should we just accelerate the rate of implementation of ACCSP programs specific to striped bass or do we need to take another tact, so all that's going to be put together in a matrix for the tech committee to review at the end of March.

Based on the tech committee input at that meeting, staff will then develop a draft addendum for presentation to this board at the May meeting. So potentially in May the board could approve that document for public hearing or they could request additional modifications to that document. So, that's the schedule we're on right now.

MR. COLVIN: Thanks, Bob, and that does help me place I think this review in a somewhat larger context, because one of the things about this current petition and our review of it that troubles me just a little bit is that it focuses primarily on a single component of the fishery, the New England groundfish fishery, and there are many other fisheries, particularly in the Mid-Atlantic region, inshore fisheries, that are obviously producing striped bass discards that I believe what I heard this morning suggests are not currently very well covered by observer data.

And so it would seem to me that the board might want to consider, based on the conclusions the technical committee has come up with, recommending to the service that we

jointly go forward in partnership with the service to implement the program that we will come up with this year so that we better understand the discarding issues in the striped bass fishery before we proceed to development of particular management actions at either the state or federal level that address them.

And part of the reason I say that is that the conclusion of the significance of this particular discard on the stock assessment appears not to be significant.

CHAIRMAN TRAVELSTEAD: Any other question for Gary? Bruce.

MR. BRUCE FREEMAN: In the presentation, it indicated that the average size of these fish taken was somewhere between 10 and 20 pounds. The conclusion apparently arrived at is that overall the weight is not spectacular so far as what we see in other fisheries.

But relative to those fish that are taken, relatively large size, is there any indication that particular size has a higher mortality than other sized striped bass?

MR. NELSON: I don't know; I have no idea.

MR. FREEMAN: That wasn't looked at by the technical committee?

MR. NELSON: No. All we were charge with was to review Gary Shepherd's analyses, and he didn't provide anything like that in the report.

MR. FREEMAN: The reason I asked, I know at times the technical committee has identified specific age or specific size striped bass with high mortality that we're concerned about, and I'm just curious if these sized fish happen to fall into that range.

MR. NELSON: You mean into the eight plus group that we've --

MR. FREEMAN: Yes.

MR. NELSON: At that size, at least at the 20 pound, yes, they fall into that size. But, again, even if we added those numbers, if this was an additional source and we added to the assessment, it wouldn't change the F on the eight-plus at all.

CHAIRMAN TRAVELSTEAD: Mark.

MR. MARK GIBSON: Thank you. I agree with what Gordon had to say relative to an approach. I don't think this rises to any sort of emergency response at this point. The numbers are relatively small in an overall stock removal context.

I think I agree with the technical committee that this estimate that has been made independently is probably already imbedded in the estimates that the technical committee makes based on tag recapture ratios between commercial and recreational fisheries, so I think we could proceed with the technical committee developing that addendum perhaps in concert with the service with a request to enhance our observer coverage in some of the areas where the coverage isn't particularly good.

I guess if there is a concern, my question would be for Gary, is there any likelihood that these discards, because of the spatial limitation where the observer coverage was executed would be concentrated on one stock component as opposed to the entire, you know, distributed over the entire stock component?

MR. NELSON: From what we saw of Gary's analyses, the bycatch was a rare event except in October in the Great South Channel. And from what I remember, I didn't see really

any clumping near certain areas like the mouth of the Delaware River, Hudson River or anything like that. So, I would say it covers the whole stock at this point, anyway. Does that answer your question, Mark?

MR. GIBSON: Yes.

CHAIRMAN TRAVELSTEAD: Anyone else? If you look near the back of Dr. Shepherd's report, you'll see the letter from Paul Howard to Vince O'Shea requesting that the Commission evaluate the NEFSC document and any other relevant data to determine if the discards of striped bass by groundfish boats are sufficient to warrant council action to reduce them.

I would like to get a motion that responds to this request unless we can do this by consensus, but I believe the technical committee has informed us now that this is not a significant problem. I think we need to direct staff to prepare such a letter that describes what the technical committee has found and pass it back to Paul Howard. Pete.

MR. W. PETER JENSEN: Well, I don't know why we don't just transmit the technical committee report to them instead of recommending any action. They can take their own action based on the information that is available to us and them.

CHAIRMAN TRAVELSTEAD: That's fine. Is there any disagreement with that? Gordon.

MR. COLVIN: No, I agree with Pete. I think if it was helpful to the New England Council, we could tell them, in transmitting it, that we are not asking the council to take action. I think it would also be useful to inform the council of the provisions of Amendment 6 that Bob spoke of and our intentions with respect to that as we go over the next year.

I think it's also important to remind the National Marine Fisheries Service of that as we will doubtless need their help and the help of the Northeast Observer Program in meeting our goals pursuant to this discard program.

CHAIRMAN TRAVELSTEAD: Very good. Tom.

MR. THOMAS FOTE: Was there any look at the fact -- Oceana has a different estimate of what the discards are and the number of fish, but did the technical committee look at it at all of how they got their figures, why the figures are so different?

MR. NELSON: No, we don't know how they calculated except from what I hear they were wrong. That's why Gary Shepherd conducted these analyses, and it reduced the estimate of discards by ten-fold.

MR. FOTE: Yes, it would have been easier because this document is floating out there. It's been sent to a lot of people, and it would have been nice to have some analysis to say this is where you're making your mistakes or something like this or how did you get the figures, so at least when people ask me the question, I can say, no, this is what the figures are because they did it this way.

CHAIRMAN TRAVELSTEAD: Is there any objection to the suggestion that Mr. Jensen and Mr. Colvin had about forwarding the report of the technical committee and the other items which Gordon suggested? Is staff clear on that? Okay. Yes, Bill.

MR. WILLIAM A. ADLER: Thank you, Mr. Chairman. I think it's very important, one little thing they have on the first page of the technical report here, only one estimate was provided. And I think that how we deal with all types of estimates and stock assessments, every

time you try to do one one-shot, the technical committee always says, you know, we need more of a bigger picture or a longer series or whatever, so I think that's very important that is it the low end or the high end?

We need to -- I don't know whether that could be emphasized a little but, you know, go out and take another look here because that's a very important thing actually, I think. Thank you. Is it 512 or 521?

MR. NELSON: Five twenty-one.

MR. ADLER: Okay, so we're not looking at the wrong square.

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

DR. JAIME GEIGER: Mr. Chairman, I think that suggestion of submitting the technical committee report is fine, but I think we need to give some indication that this board supports the conclusions of the technical committee. Thank you.

CHAIRMAN TRAVELSTEAD: I think that's what Mr. Colvin has suggested when we transmit the report of the technical committee. I think the staff is clear on that, so it appears we have consensus on that and that will be done. Any other comments on this particular issue? All right, let's move on to your next report, Gary.

MR. NELSON: At actually a few board meetings, I guess, I updated you on the Maryland bay-wide F estimation, and what has gone on is Maryland originally petitioned the Atlantic States to be able to drop their summer/fall tagging program, which they were using it to estimate bay-wide F.

Virginia objected via John Hoenig, and the board sent the issue back to the technical

committee and John Hoenig provided us with additional analyses. After his analyses, he had no problem with Maryland dropping their summer and fall tagging program and then using the spring tagging to estimate the bay-wide F.

The technical committee wanted them to provide estimates from the spring tagging on how they were going to estimate that F. And at the last meeting Maryland and Virginia provided three estimates, the R over M estimates, the Crecco method and F estimates from Hoenig's instantaneous rates tagging model.

The tech committee reviewed and accepted that, and Maryland and Virginia will present all three estimates for the stock assessment with not focusing on one yet just to see how the three methods will provide information.

But the tech committee still -- let me back up and just say that Maryland and Virginia are going to also look at ways of improving their spring tagging program, maybe formulating different periods when they release fish and things like that.

And so the technical committee still will require review of any changes made to the spring tagging programs. And that was pretty much it. We talked about whether as before they only provided one estimate for a bay-wide F and it was agreed upon that three will be good to take a look at how each responds and estimates F for the bay. So, that was it for that.

CHAIRMAN TRAVELSTEAD: Any comments or questions on this item? Gordon.

MR. COLVIN: I understand for the time being all three of the estimates will be produced. I didn't hear indication as to how long that would be done. Is that a one-year thing until the next --

MR. NELSON: No. I'm not sure if we talked about that, but I think they were going to keep providing it until -- I don't know if they'll decide whether one is good or not, but I think providing three will give us a sense of how each of the estimates vary over time. And how they'll summarize that as a bay-wide F, we haven't got to that yet.

CHAIRMAN TRAVELSTEAD: Other comments or questions? Okay, moving on, Gary.

MR. NELSON: All right. At the last board meeting, it was asked of the technical committee -- some people were confused about the F that we report on ages 8 through 11 and why it has changed.

And, what I'm going to do is just take you through some definitions of what we used in the assessment, starting with what the definition of a fully recruited age is, and then go into how we use the information based on fully recruited ages in some of our analyses to determine things like reference point and yield and things like that.

We define a fully recruited age as one which is completely vulnerable to the fishery. It experiences the highest fishing mortality; and, because not all ages are vulnerable -- not all ages are vulnerable because of different size limits, mesh sizes, things like that.

This implies that fishing mortality experienced by some of those less vulnerable age classes can be represented as a fraction of the F on the fully vulnerable ages. And what do I mean by that? Up here in this table on the left is a column of numbers representing the fishing mortality estimated for different ages. This is just a hypothetical example.

What we do sometimes is to generate what's

called a partial recruitment vector, and that is done by taking the maximum F, which in this case is 0.35, which is shown at that bottom, dividing it into each of the Fs to come up with a proportion which is on the right-hand column, a proportion of that highest, that full F.

It's a proportion at age. This vector is also known as the selectivity pattern. We use that information with an estimate of full F to apportion F back into age classes. And if we knew the recruitment, which is the proportions at age of the full F experienced by each estimate, you had an estimate of full F, you could always get back to the F at each age.

We determined these vectors from -- you can either determine them from VPAs or tagging studies. The partial recruitment vector -- that proportion vector is used in all our different models to calculate things like SSB threshold, spawning stock biomass threshold, yield per recruit, things like that, giving a value of full F.

So if the board came back and said what would be the yield from striped bass given an F of 0.30, we would then use that partial recruitment vector, that full F, to apportion that full F to the different ages, and it would vary depending on the age.

Now the shape of that vector is going to be dependent on regulations. If you change the regulations, you change the recruitment vector; and because you change the recruitment vector, you would need to recalculate thresholds because of changes in regulations. I hope I'm making sense.

How is this related to reference points? We use that recruitment vector in the reference points, but it wasn't available until recently. During the early '90s, there was a reference point generated from tagging data by Paul Rago and Bob Dorazio and Vic Crecco.

Rugulo and Crecco also developed some spawning stock biomass threshold measures using assumed minimum size of 28 inches in the bay, 28 inches on the coast, and they defined the age at full recruitment to the fishery at age 5. And then they compared these thresholds to the tag-based F.

In '97 the VPA actually was developed, and the age at full recruitment was based on a catch-at-age distribution with a full F defined at age 4. They made comparisons between the target F to that old threshold based on the VPA, and at that time F was 0.33 for the target and 0.4 for the MSY, and this was assuming a 28 inch in the bay and 28-inch limit on the coast.

Now in 2003 we developed new reference points because the exploitation patterns have changed, and I think I have these correct. It was 18-inch minimum size in the bay and 28 inch on the coast.

Now, because the exploitation pattern changed, we had to redevelop these thresholds. And the recruitment pattern we determined from the VPA by averaging over five years because it is a little bit variable.

And we used this partial recruitment value vector into the yield per recruit to calculate our new FMSY. And now because of the change in the shape of the recruitment vector, the fully recruited ages now are at greater than 8, not like before, age 4 and age 5.

And because in the ADAPT VPA, anyway, we actually estimate F for each age; we take the average F for ages 8 to 11 as a fully recruited F, and we compare those to the reference point. Here is an example.

On the top graph is the partial recruitment vector, the fishing pattern, basically, from '82 and '94 estimated by the VPA. And you can

see that there is generally a too high bimodal pattern. There is a high fishing on the younger ages, probably from Chesapeake Bay back then, and then some of the older ones.

And the lower graph is actually what the current pattern is now, so you can see what ages are actually being fully exploited, which are the ages 8 through 11, we call that, so that it hasn't been quite a change.

That's why we recalculated the reference points for Amendment 6 and why there was changes in that, so now we use ages 8 to 11 as the fully recruited F, as before in Amendment 5, I think it was 4 or 5 or something like that. I don't know if I answered the question that was asked at the last meeting.

CHAIRMAN TRAVELSTEAD:  
Ritchie.

MR. G. RITCHIE WHITE: Trying to understand this -- and this is helpful. On this graph here, can you explain to me why the bottom graph, why the mortality rate stays the same on the age classes 9 and above? I guess why wouldn't there be different mortality rates as there are a different amount of fish in each of those age classes?

MR. NELSON: Well, from the VPA, you actually get estimates of how the Fs behave, and for these older ages it tends to just level off at a certain F value. So that's why right now, since we say 8 to 11 is the fully recruited F, why we just set that to one. It's level. It does vary a little bit, and it will from year to year, but on average it levels off, and that's why we cap it basically at that -- make it level at those ages.

MR. WHITE: A follow-up, Mr. Chair. So if you had an age class come in to, say, the 9 year old that was substantially larger, then would that show an increased mortality rate for

that age class where you had a lot more fish available to be harvested?

MR. NELSON: Yes, it could, it could, and we do look at that. But when we compare to the reference points, we have to estimate a fully recruited F and that's why we take the average.

CHAIRMAN TRAVELSTEAD: Other comments? Yes, Lew.

MR. LEWIS FLAGG: Thanks, Mr. Chairman. Gary, on the top graph here, is the reason why after age 10 the partial recruitment vector goes down, is that an artifact of the management measures that were in effect in terms of having maximum size limits?

MR. NELSON: It could be. I'd have to go back and figure it out. This is actually an average from '82 to '94, so it could have been higher one year and lower the next, but it could have been. I don't know if that answers your question.

MR. FLAGG: Yes, thanks.

CHAIRMAN TRAVELSTEAD: Anyone else? Mark.

MR. GIBSON: I don't know what the question actually was asked to generate this presentation, but a 13-year-old striped bass is not particularly old. We refer to them as old fish, but they're not in the context of its life history.

And a long-term concern that I have, which is distinguished from the short-term issue we dealt with a few minutes before, is that we really don't know what the F is on old striped bass.

They've been otolith aged out to the high 20s and very likely can approach a maximum age of 30 given some of the very large specimens that

have been taken. We don't know what the F on older fish is and we don't know what the selectivity pattern is out there, whether it's saddle-shaped or dome-shaped or flat-topped or anything like that.

It seems to me that's something for the technical committee to be thinking about in the future, because one of the long-term issues for striped bass management in my view is going to be maintenance of the age and size composition in the population.

We have certainly short-term inertia right now, but I have concerns about the fishing mortality rates on the very largest, truly old striped bass, and whether they're going to be sustainable in the long term.

CHAIRMAN TRAVELSTEAD: Yes, in fact, Gary's going to talk to us in a few minutes about an otolith-sampling program so your question is timely. Any other questions at this point? Okay, Gary.

MR. NELSON: It was also asked at -- I don't think it was the last board meeting but the board meeting before, but somebody asked what would be some of the implications of exceeding the F target, which is 0.30 I believe.

And, we also stuck in what would be the implications of exceeding the threshold value, which is 0.41. And Gary Shepherd provided some projections of what the striped bass population would do over time, given certain fishing mortality values.

And he provided two scenarios with different F estimates. The first would be an F of 0.35, which is shown up here on the slide. What he did was starting with the 2003 abundance value for each age is to use that partial recruitment vector that I showed you, the current one, and applied that F to each age, then decremented the numbers over time.

And also for recruitment, he basically used the stock recruitment relationship developed in the VPA and then used that relationship, so that in each year you would generate a new recruitment estimate. And he did the simulations I think about a thousand times each to come up with what the trajectory would be out to 2014 or something like that.

And in the upper slide here is showing what would happen to total abundance if we fished at an  $F$  of 0.35. And you can see there is a slight decline in abundance, but it is seen to be leveling off after about 2014.

The lower graph is the trajectory for the 8-plus abundances, which are the large fish. There is an initial dip during the first few years but kind of a leveling off. It's a little variable, but it doesn't seem to be declining.

That big dip you see there is I believe due to that -- I think the 2002 year class, which was pretty full. Was it I think that one? So it's just those fish that are turning age 8 in year 2009. But from an  $F$  of 0.35, there doesn't seem to be much effect on the trajectory of the population.

But if we went to 0.45, there is a little different picture. Again, the total abundance would decline but seemed to be leveling off at below 40 million fish or so. But for the 8-plus abundances, there seem to be quite a decline over time if we fish at such a high  $F$  value.

We still get similar patterns. There's a dip because of the 2002 year class, but overall it seems that this  $F$  of 0.45, the abundance of 8-plus fish will decline. And, of course, there is always an assumption that the stock recruitment relationship that he used always assumes that recruitment patterns won't change; and if there are any changes in the environment, they may. So those are some of the -- that's one of the major assumptions. So that's it for that.

CHAIRMAN TRAVELSTEAD:  
Questions or comments? None? Okay, one more report.

MR. NELSON: One more. Back in, I believe it was 2002, we had an aging workshop, but basically the opinion out of the workshop was we couldn't really reliably age large striped bass beyond 800 millimeters or 31 inches total length using scales.

So it was suggested we try to switch to aging otoliths at least for those larger fish since the otoliths seem to be a much more reliable structure for determining age.

Last year we sent around a survey to the states involved with striped bass to try to determine what the feasibility is of collecting, processing and aging striped bass otoliths. So this past winter I got most of those responses back, and so I'm just going to try and summarize what the responses were.

The tech committee in the meantime actually met a couple of times to discuss this, too. And out of one of those meetings, we developed the idea that we need to develop otolith age-length keys, and there were seven areas that were developed.

The coastal regions of Maine, New Hampshire and Northern Massachusetts would be one. Southern Massachusetts, Rhode Island, Connecticut and New York would be another. New Jersey, Delaware and Maryland -- this is for coastal -- would be the third. And Virginia and North Carolina would be the fourth. And then regional keys would have to be developed for each of the bays, Chesapeake, Delaware Bay and the Hudson River, so seven altogether.

Based on some sample size analyses, we determined that for one age-length key, regional age-length key, we would need at least 225 otoliths per region, pre regional key. And in

some regions, they need to develop at least three or four age-length keys, which based on a fairly reasonable level of precision, the estimates of numbers, the total estimates of numbers we will need for otoliths is greater than 2,000.

And we all talked about how we could get these otoliths. Some we could get from current programs. Some of us have carcass collection programs. Of course, we all talked about getting organizations like the CCA involved.

And also if we were going to get some from commercial sampling, we would need to actually buy those fish since most of the dealers don't want us chopping up the heads. In the opinion of all states -- most states was that collecting otoliths is going to be additional work.

A lot of the current scale aging can't be reduced because they're still required for other programs. Some can because, you know, we're talking about the larger -- just doing it for the larger fish, but it's not as much as you would think.

Processing of otoliths, removing the otoliths from the heads and then sectioning the otoliths will also be additional work. Right now only two states have the capacity to process those otoliths.

That's New York and Virginia. But, they can't really handle the number of samples that we suggest, greater than 2,000, let's say. For each state to at least buy the equipment, it's going to cost about \$6,500 initially just for the saw and the blades and everything and about \$600 a year for supplies.

And I talked to most states and none -- the collecting or the processing cannot be done without additional staff. And under the current budgets, no one seems to have money to do

that; and so without this, we're not going to be able to get that.

So, the summary is we don't think we're going to be able to go ahead with using otoliths as age structure simply because we don't have any money to process them with. It's a big expense. It takes at least an hour for each otolith to process section, so we really don't think this is going to work unless additional funds come about. That's it.

CHAIRMAN TRAVELSTEAD: Gary, the 225 otoliths per region, per season, are those only from fish 31 inches and greater?

MR. NELSON: Yes.

CHAIRMAN TRAVELSTEAD: So, you're talking about a lot of large fish.

MR. NELSON: Yes. In Massachusetts we've done a carcass collection over the last three years, and we get about two hundred and something otoliths a year, but only about I think 10 or 20 percent are generally over 31 so you're only talking about 64 otoliths or so.

And we don't think we can -- we get these from volunteer charter captains and stuff like that, and it's just me and another person trying to remove these things and collect it, so it's a lot of work just to get 200 or so carcasses.

CHAIRMAN TRAVELSTEAD: Going back to your slide that looked at the regions along the coast, and recognizing that not everyone is probably going to be able to afford to do this, is there any particular region where if you had the information it would be more helpful than any other region?

MR. NELSON: No.

CHAIRMAN TRAVELSTEAD: Does it have to be done by everyone to be

worthwhile; or, if Virginia were to decide to tackle this, for instance, would that be helpful?

MR. NELSON: The concern would be whether the fish in Virginia are going to be the same age or size as the fish in Massachusetts, let's say, and that could be an issue. We get fairly large fish in Massachusetts. Virginia may not, and they may miss those so if you applied that age-length key to our fish, you would not estimate the composition properly.

CHAIRMAN TRAVELSTEAD: Got you. Other questions? Gordon.

MR. COLVIN: Just relating this discussion to the comments that Mark made a few minutes ago about the state of knowledge on the truly older striped bass, would we not need to make sure that otolith aging we did covered the really older fish, fish well in excess of 31 inches?

MR. NELSON: Yes. Unfortunately, as they're getting bigger, the numbers are getting smaller so those fish get rarer and rarer. And we're just -- yes, I'll just say that.

MR. COLVIN: Because it occurs to me that there is another problem that I don't think is clearly identified here, and that is the reluctance that we face to sacrifice fish at that age that we do encounter when we have the option of not doing so. And, that's just a whole other problem. I can't imagine how we'd get a sample out of the Hudson River, for instance.

MR. NELSON: Well, I think if we were to do this, we would have to solicit the help of recreational fishermen. I'm not sure if we can get as many as we need.

CHAIRMAN TRAVELSTEAD: Tom, Vince and Bruce.

MR. FOTE: I agree with Gordon, it's

going to get very difficult for big fish to be brought in just to cut the heads off. I mean, fishermen are -- they're going to let him go, I mean, when it gets that big, except you're going to bring in a trophy or something like that, then they wind up mounting them or something, going that way. But just to send -- you know, fishermen will do that but they have a real propensity not to do that.

Also, I understand why you're having all the samples, but really we have three stocks, three genetic stocks along the coast. Couldn't we just age them when they are in spawning grounds and basically take the oldest there instead of basically worrying about all the samples along the coast?

I mean, because basically -- I'm just thinking that's a lot of samples to basically cover this, so I'm trying to figure out why we need seven. I know it's nice to have, but couldn't we do it with a smaller amount since we're only really looking at three genetic stocks along the coast?

MR. NELSON: The problem there is we don't know -- for instance, in Massachusetts it's a mixed stock. We don't know what proportion you would apply from each of those spawning stock areas to get the Massachusetts ages.

MR. FOTE: But one of the primary studies could be to see if there is a difference first between the three stocks, so you get them during the spawning to see if they actually are growing at the same rate, because then you wouldn't need the seven.

If they all have the same growth rate -- say, if they came from the Chesapeake Bay the Delaware River or the Hudson, you wouldn't need to do it from all the regions, and so maybe that would be a preliminary study to see if we just sampled from the spawning grounds of those three areas to see if the growth rate with

the otoliths are all the same so we wouldn't have to do all the sampling on the outside.

MR. NELSON: Well, actually, there has been tagging studies done that show they do grow at different rates. The fish released up north have a different growth rate than the fish from the south.

CHAIRMAN TRAVELSTEAD: Vince, then Bruce.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: Thanks, Mr. Chairman. I appreciate the comment of the reluctance to increase the mortality on large fish just to get the samples, but I was under the impression there were some states that actually had trophy seasons that might be up in the tens of thousands of fish that are caught, and that might be something to look at.

But my real question is I think the cost that jumps out at me is the personnel costs to go out and collect the samples rather than the saw blades. I'm wondering can that work be done by non-scientists to extract the otoliths and could non-scientist people be trained to do that, say, for example, volunteers so that -- I assume they can measure the fish. That should be pretty easy. And then the next part would be collect the otoliths and label the otoliths with the length of the fish.

MR. NELSON: At that size what we use to cut the skulls open is a reciprocating saw because the skull is so thick, you would need something like that to do it, so you can't just use a knife out in a boat.

EXECUTIVE DIRECTOR O'SHEA: If they go to Home Depot and buy a saw?

MR. NELSON: Yes, you would need -- yes. So I'm not sure if I could get people to volunteer to do that.

EXECUTIVE DIRECTOR O'SHEA: Well, the issue isn't can you get them to volunteer. The question is would a person that was interested in doing it, could they be trained to do it correctly so that a state biologist wouldn't have to extract all 2,000 of these otoliths?

MR. NELSON: Yes, you could train people to do that, yes.

EXECUTIVE DIRECTOR O'SHEA: If they were interested in helping.

MR. NELSON: Right. That's half the work; the other half is processing.

EXECUTIVE DIRECTOR O'SHEA: I got that part. Thank you, Mr. Chairman.

CHAIRMAN TRAVELSTEAD: Bruce.

MR. FREEMAN: Thank you, Jack. I had a question similar to Vince's. There appears to be times when states can get large numbers of very large fish. And from the otolith standpoint, if these were warehoused for some period of time before they're actually sectioned, that should not be a problem, should it?

MR. NELSON: No, having a historical series is handy, too.

MR. FREEMAN: I'm just thinking it may be worthwhile to begin collecting perhaps on a volunteer basis, what Vince's theme was, and even if you didn't get adequate numbers, your 225 per region, per season, I think anything you probably collect would be useful.

MR. NELSON: Yes, at a certain point. But if we were to use those otoliths to try to estimate age composition, which is the ultimate goal, a few won't do it. You'll have major

errors in the estimates.

MR. FREEMAN: Well, I'm thinking of a situation that occurs in our state. Particularly in the spring, we've been having very large catches of very large fish for some times two to four weeks, and those fish are usually brought back and cleaned at the dock and the carcasses are thrown away.

So to section the heads, it may be a little difficult, as you indicate, with a saw, but I'm sure on a volunteer basis we could collect samples. I'm not sure we'd get 225, but it may well be that we may be able to get close to that.

And if it were done on a few key areas, we may be able to accomplish this. The issue, of course, is, well, who is going to section them and then read them? But, it seems like the collection at this point is an impediment that perhaps could be overcome.

MR. NELSON: It's still a lot of work, though. You still need to dedicate a person to training people to go out and collect those from people. We have one person that during the spring and summertime spends at least three or four hours, five hours a week just running to different sites to pick up the carcasses, so it can be significant depending on the size of your state.

CHAIRMAN TRAVELSTEAD: Gary, help me understand the relative value or the benefits of doing this, given that there is some substantial costs associated with it. What do we learn that we don't know now and how important is it? Once we have this information, is all of our problem solved or is this just a small problem that is solved?

MR. NELSON: Yes. The benefit to this is getting more accurate age estimates so we don't have to plus-group -- in the assessment we use a 13-plus group because we

can't really age reliably beyond that.

If that's the case, if we can get better estimates and actually spread the catches out over the true age distribution, it would give us better estimates of F. Yes, it could actually go down.

CHAIRMAN TRAVELSTEAD: But did the technical committee discuss this at all in terms of cost versus benefits? Did they see this as something worthwhile or not?

MR. NELSON: Oh, yes. But, again, none of us have the money right now to really dedicate to doing this. It's a lot of money.

CHAIRMAN TRAVELSTEAD: Okay, Ritchie.

MR. WHITE: Thank you, Mr. Chairman. Gee, I look at the collection numbers as not being a big factor. You look at that northern region, you're talking 60-70 fish per state. New Hampshire would have no problem doing that.

In fact, I would feel very comfortable in collecting half of that northern for that section. We'd do 100 fish easily. CCA New Hampshire has already committed to being a big part of this program, both in the collection and helping financially on the second part of it.

Also, another resource might be the university systems. We would certainly love to -- our university to help us out because they have the ability to do this, and so we might be looking to them to help out in this. So the collection -- I think training volunteers, I think the collection of the fish is the least of the problem in my estimation.

CHAIRMAN TRAVELSTEAD: Eric.

MR. ERIC SMITH: I had two points. We also have the capability -- in fact, we do

this now. It wasn't listed up on the slide. We do it largely for tautog. I guess I do understand some of Gary's answers in terms of the processing, the boiling of the tissue and then the sectioning.

There's a whole bunch of stuff that has to go into this. But I wanted to comment on -- I guess Tom Fote made the point that maybe we don't have to do everything in every area, and I didn't get a clear signal.

I understand the part that you have to have a sufficient enough sample size in one year to get that age structure, a few fish doesn't do it, but do you necessarily need seven regions or could you do it in three regions, a north, a mid and a south? I don't know if that was asked and answered before.

I didn't get an answer to that in my own mind, and I'm looking at ways to economize here. Because, when you look at the three states -- if Connecticut, New York and Virginia can do this and New Hampshire is very willing to get on board somehow, you have at least two areas in the coastal and one potentially down in the coastal and bays that you could get those samples.

It's not as good as having the seven regions, obviously, but I'm just thinking of ways to minimize the effort and still get the signal that you need to get.

MR. NELSON: Again, if there is any differences in sizes between regions, applying an age-length key developed in one to another, you can underestimate the age structure. I guess I'd have to take this back to the technical committee and ask whether we could do that.

MR. SMITH: A follow up, the reason I ask that -- and I understood that answer before, and that's why I didn't suggest that only one region could satisfy the need for everywhere

because there are going to be regional differences.

But if you take the seven down the coast and you pick 1-2-3 instead of seven, let's face it, we all know how technical staff diligently work to design the proper survey, and people do that and I applaud that.

But then you have to give it a dose of reality and how little can you do without losing the scientific validity? If this is an important enough question, which is one of the questions the chairman asked, then maybe we ought to have them take another whack at this in the realm of how low can you go before you lose the scientific credibility that you're looking for.

MR. NELSON: Yes, that will be hard because we don't have otoliths from all these regions. If we had something like that we could do some simulations to look at what would be the best combination, but right now we have otoliths from Virginia and New York, and that's it.

I'm trying to remember what it was based on, but it was based on some migration patterns and things where we thought the different stocks kind of mixed together and what they would be. I can take that back and we could talk about that again.

CHAIRMAN TRAVELSTEAD: I have Roy, Tom, Everett and Gordon.

MR. ROY MILLER: Thank you, Mr. Chairman, just a follow up on the question you asked, Mr. Chairman, and to follow up with Gary. Assuming that aging causes underestimation of ages of older fish, is that a fair assumption, what's the implications on our estimation of F as a result of this underestimating ages? Would we be overestimating F or underestimating F? And if so, how serious is this likely to be if it

continues?

MR. NELSON: That's a good question. I did some simulations one time looking at the question of applying inaccurate estimates of age structures to the catch to estimate age composition. The combination I looked at was trying to simulate what we're doing now in terms of striped bass.

And there's definitely an overestimation of F if the ages are underestimated, because you're starting to bunch numbers up into the younger age classes, so your F is going to be high. But if you took those numbers now and spread them out into the higher numbers, you'd be harvesting fewer numbers at age, and so the F should go down.

MR. MILLER: If I could just follow up, Mr. Chairman. Then that gives me a little more comfort with our present procedures, because what you're saying is that by underestimating age, we're perhaps overestimating F, which would be a conservative approach to management. So, you know, if we cannot afford an otolith collection and analysis program, then at least we're erring on the side of conservation. Thank you.

CHAIRMAN TRAVELSTEAD: Tom.

MR. FOTE: I was on a conference call with Marty the other day. We were talking about weakfish and talking about compliance and talking about collecting data, and we have to collect otoliths in weakfish and it's becoming a compliance issue, and it's tough getting the samples.

And we've volunteered to do a workshop for some of the organizations to basically train personnel and buy freezers in case collection points need to be established, let the freezers do the work like that.

I mean, the collection of the samples – I mean, you have people now like we have some retired dentists that's actually taken the otoliths out and doing that work and really gets it -- you know, he gets a thrill out of doing things like that because he thinks he's contributing to the science of what needs to be done.

It's an education process. I think between the groups that are available, CCA, RFA, Jersey Coast, the Maryland Sport Fishing Association, we could come up with the funds necessary to do that and just really be aging them.

I'm just trying to figure out a system of doing that. I know it's very difficult to train, but we train students to do that. And sometimes the problem with training college students is they move on. So you've got them for two or three years, you spend a lot of time.

So maybe if we get a volunteer corps, because it's not just in striped bass. It's in weakfish. It's tautog. We're all running into the same problem for a lot of species, so maybe it would be interesting to put a workshop together to discuss how we train volunteers to do this, what would be necessary to do that on all the species that we need to collect that, because we're not getting any more money in the agencies.

At these times budgets are tough, and we need to start looking at alternatives outside the boxes. Maybe this is one way of doing it and save us money on weakfish, tautog, striped bass and a few others.

CHAIRMAN TRAVELSTEAD:  
Everett.

MR. EVERETT PETRONIO: Thank you, Mr. Chairman. Frankly, I would like to see this discussion steered more toward the processing. To the extent that certainly speaking from Rhode Island's perspective, I would agree with New Hampshire.

Collecting the 200 carcasses of 31-inch fish or greater should not be a problem. I think that any group, whether it be recreational, commercial, what have you, would love to help to contribute to the science, marina owners.

I could foresee Rhode Island being able to do a large portion of this. The question that I have is once we have the raw ear bones, I'm not familiar with, and I guess I'd look for guidance as to the processing, but I think that as far as samples, I can't imagine that we can't collect the necessary number of samples.

And I guess what I'd like to see discussed is how do we go about processing these because I really don't think it's as big an issue as it's made to be to obtain the bones themselves. I'd like to hear the various directors discuss what might work as far as the processing that would make the technical committee happy so that they're done in a scientifically viable fashion.

CHAIRMAN TRAVELSTEAD: Gary, do you want to comment on that at all?

MR. NELSON: We all agreed that collecting is probably a fairly easy thing to do. Again, it's once you get the otoliths, what are we going to do with them? It takes at least -- some estimates I got from New York was at least an hour to process one fish.

That's because you have to mount the whole otolith on slides in a per mount. It takes time for that to dry. Then you have to section it. You take the sections; you glue them on the slides. That has to dry. You have to polish sometimes if the sections don't come out, so it takes a long time to process some of these.

And New York right now does some. Virginia I guess has a big program which they pay ODU to do. I can speak for Massachusetts, we neither have the equipment nor extra personnel to do

this, and that's the problem.

I mean, if there is a way of getting some money and making an otolith sectioning center, pay ODU to do more work, maybe we can do it that way.

CHAIRMAN TRAVELSTEAD: I'm sure there may be some interest on the part of ODU to take on more work provided funding was made available to them. They have a full-time aging lab there of three or four people.

They do quite a bit of work for us, but I think with additional staff, they could do more. Whether or not they're interested, I don't know, but certainly we could explore that. Pres, I thought that at one point North Carolina had a big fish-aging program.

MR. PRESTON PATE, JR.: I guess relative to what some of the other states have had based on what I've heard this morning, Jack, we do. We've been real active in aging fish for other plans like shad and river herring and weakfish, as well, trying to get over that aging problem that we experienced with weakfish a few years ago.

I don't want to overextend our capabilities and volunteer today to take on some of this aging responsibility, but to the extent that we can, we'd be willing to work with the Commission in trying to get some of this work done.

CHAIRMAN TRAVELSTEAD: I have Gordon, then Anne and Pete.

MR. COLVIN: Thank you. Just a couple of things. Number 1, I appreciate the comments folks have made about perceiving that the collection of the fish can be done, and it can be. But I do want to suggest that people not underemphasize the difficulty of obtaining a large number of specimens of large striped bass.

It's one thing to get 20 pound plus or 30 pound plus fish. It's quite another to get the 40 and 50 pound fish that we absolutely need in substantial numbers to round out the aging of the older fish and to do it year in and year out forever.

And so that's going to be the key part of the challenge here. We need those -- we need a substantial number of really big fish, and those are the ones that people are reluctant to kill. And if they do, they have other designs on them than what we might have.

That said, let me just turn attention to the analytical part of this. You know, just a thought that has occurred to me, and it has been pointed out that we do have the laboratory capability and expertise, and we do.

What we don't have is sufficient technician staff capability to do aging work beyond what our own striped bass unit has been trying to do. If some way could be found for the Commission to be able to engage a lab technician to work in our lab, I'm sure we could provide access to the equipment and the necessary supervision and essentially training, expertise and oversight that's needed for QAQC on an otolith reading operation.

Now, I'll say that and then I'll say to all of you, Byron Young is going to be here tomorrow for the shad and river herring meeting. Don't any of you dare tell him I said that until I do. But I think that is probably something we could work out.

But it means that we'll have to find money for salary for a Commission lab tech or maybe even two depending on, you know, doing it as a seasonal thing with two folks working together.

CHAIRMAN TRAVELSTEAD: Anne raised her hand. Maybe she has some money.

MS. ANNE LANGE: Actually, no, and that's part of what -- I'm sort of conflicted here. I certainly think that we should go forward toward the best available science, and certainly getting age samples and working those age samples up would be very helpful for the overall understanding of the stocks and the distribution of the different components of the stock.

But I don't think that we can operate in a vacuum with all of the other priorities that the Commission has in conducting assessments -- improving the assessment for striped bass, as well as for all of the other species that we have responsibility for.

The question goes back to what Jack and Roy both asked Gary, is in fact using a plus group more risk averse for the assessment than doing all the additional work to get an age distribution?

If it is more risk averse, where does this priority fall?

Now I'm not saying that we shouldn't collect the specimens, you know, get out there and try to collect over time a wide age distribution of samples, but again what is the priority on this relative to other things that the Commission and this board has to address?

CHAIRMAN TRAVELSTEAD: Vince.

EXECUTIVE DIRECTOR O'SHEA: I don't know if anybody was going to answer Anne's question. I'm wasn't going to do that; it's another issue if you want to take that.

CHAIRMAN TRAVELSTEAD: Okay, let me come back to you then. Pete, you had your hand up.

MR. JENSEN: I was just going to note that if a program is organized, then our Oxford

Laboratory is in a position to participate and contribute both in terms of expertise and equipment.

CHAIRMAN TRAVELSTEAD: Okay, great. Ritchie.

MR. WHITE: I guess I was going to -- we're to a point where we're getting close to summarizing. I guess I was going to suggest that the staff kind of poll all the suggestions that have been thrown out here as far as staff and facilities and donations and maybe compile all that and see where we are.

If there is any extra money kicking around the Commission, to come up with an estimate of total cost of what this might do. If we heard an hour an otolith, are we talking \$30,000-\$40,000 to process all the otoliths that we need? And then see where we are as to a program.

CHAIRMAN TRAVELSTEAD: I think that's a good idea. In fact, I was going to suggest it myself, that perhaps the staff could poll each of the states to determine their interest and capabilities in doing this, contact some of the other universities -- certainly, ODU would be a prime contact there -- to see of their willingness or abilities to take on additional work; and then try to get a handle on what kind of cost we would be looking at for each of the states.

I can tell you Virginia has a high interest in doing this; and if we can expand our program to meet some additional needs, we're willing to do that. Vince.

EXECUTIVE DIRECTOR O'SHEA: Thanks, Mr. Chairman. I know in some states the issue of recreational license comes up and always the concern about why folks are nervous about that is that the revenues wouldn't necessarily go back into the resource.

Well, with that in mind, I know there's a number of striped bass tournaments all up and down the coast all season long, and many of those are set up as fundraisers for different organizations. This seems to me like an ideal situation where the principle would be that of those types of tournaments, that a certain portion of those funds would be set aside, directly invested into the health of the resource, and that would address some of Anne Lange's concerns about what the priority is.

If it's a high priority, then the folks that are benefiting from the resource would come forward and help shoulder the burden of paying for this. Thank you.

CHAIRMAN TRAVELSTEAD: Any additional? Tom.

MR. FOTE: When you're soliciting the states, I'd also solicit the organizations in those states because I think there is money available. I know the organization I belong to is willing to participate and help fund this.

And, again, Vince is right. You know, the saltwater license brings up things, but people, when they donate money and they think its going to a specific cause will do that, and they'll spend more money than they did on buying a license.

You can get funds kicked in there, so I think it's available if you want to do this. But I also think if we're going to do this, just do this in the context of looking at not only striped bass but let's look at weakfish, tautog, all these collections that we're doing, especially since some of the states are running into a compliance issue on other species, and it would handle a lot of those situations.

CHAIRMAN TRAVELSTEAD:  
Ritchie.

MR. WHITE: Real quick, thank you, Mr. Chairman. Will the advisory panel be sent this technical committee report?

CHAIRMAN TRAVELSTEAD: It can be.

MR. WHITE: If not, I would recommend it because I think that would be helpful.

CHAIRMAN TRAVELSTEAD: Very well. Eric.

MR. SMITH: I sense that an awful lot of states are still interested in pursuing this, but I do think Anne asked an excellent question. I would characterize it this way, if we wanted to just go along as we have and not go to the effort and the expense of getting these additional aged fish, we would have what Roy called that buffer against risk-averse management, if you will.

One reason to do this, even in the sense that Anne pointed out  
-- maybe it wouldn't rise to the level of the highest priority  
-- the nagging issue for us has been, you know, we keep seeming to exceed our F target.

And it maybe that once you answer the age of the fish question, you find that we don't have to answer that concern any more because to some extent it has been minimized or eliminated completely.

So I guess I see a reason for it, but after hearing the questions and the way Anne posed the question, I don't know that this should be a bleed-or-die issue either as long as we're erring on the side of conservation, if you will.

CHAIRMAN TRAVELSTEAD: Thank you. Mark.

MR. GIBSON: Thanks, Mr. Chairman.

I didn't want to keep belaboring this, but that's an important topic. The board seems to be comfortable with the notion that we're erring on the side of overestimating F.

I don't agree with that. We make no estimations of F on older fish. We don't underestimate, overestimate or misestimate. We make no estimation of them. We only estimate F on -- the true F is probably estimated at Age 11.

We have a 13-plus group that's assumed to be the same F as the oldest true age, and there are other conventions in ADAPT. You're really not estimating a true F fishing mortality rate except for fish at a medium to small age group.

We don't know anything about Fs on older ages, so I'm certainly not comfortable that we're erring on the side of overestimating of F. And Gary's projections showed that an F as modest at 0.45 will put the overall population into a downward trajectory.

Well, think of the Fs that we've exposed summer flounder to, that we've exposed New England groundfish to. They would have been happy to have Fs of 0.45. That on striped bass will put it into a downward decline. I think we have some risk and some exposure here in a longer term, but I'm not going to go away being comfortable that we're being risk averse.

CHAIRMAN TRAVELSTEAD:  
Gordon.

MR. COLVIN: Mark said it.

CHAIRMAN TRAVELSTEAD: Thank you. Anne.

MS. LANGE: That was what I wanted to find out and get on the record.

CHAIRMAN TRAVELSTEAD: Okay,

good.

MS. LANGE: What is the need for the older aging in this?

CHAIRMAN TRAVELSTEAD: Very good. Dick, you had your hand up.

MR. DICK BRAME: Thank you. I'm Dick Brame with CCA.

CHAIRMAN TRAVELSTEAD: Here comes the money, Dick. Is this about money?

MR. BRAME: Yes, it's about money.

CHAIRMAN TRAVELSTEAD: Good.

MR. BRAME: Need more. Back to what Mark said. I mean, one of the goals of the plan is to restore the historic age and size distribution of this fishery. And the question I'd ask the board is how do you know?

If everything is in a 13-plus age group and you're not aging the older fish, how do you know the extent to which you're growth overfishing right now? Also, there is just this psychological thing.

If you would age those older fish and get the information, the board seems to think -- I know nobody does rationally, but the assumption is that a 13-year old fish is an old fish. I mean, it's the oldest one in the series that we see, so you sort of think that's the oldest fish, and we know it's not. I mean, you need to be seeing what is the pattern of 20-year old fish. You need to have that information.

And, lastly, I would put it to you, collecting the fish may or may not be a problem. I don't think it is. But just think, the greater tragedy to me is to have a 40-pound fish where the carcass is eaten by the crabs.

I mean, we need to have a system set up where these large fish can be collected. I mean, you can get volunteers to do it; that won't be a problem at all.

But, I would assume that a large proportion of the fish you want are now being thrown away. A lot of the ones people want to mount, they use plastic mounts. I would not advocate saying to kill those fish, but if a large fish, a 40-pound plus fish dies, that's invaluable information, and we need to have a system set up to get it.

CHAIRMAN TRAVELSTEAD: Roy.

MR. MILLER: One quick comment. The suggestion was made that we're not aging older fish. In fact, many jurisdictions are aging older fish. The fish that are taken with electro-fishing gear, for instance, on the spawning grounds of the Delaware, all of them are aged, including large, mature females up to 40 or 50 pounds.

Now, obviously, that data is not being utilized if they're all lumped into an 11 or 13-plus group. I suspect that many of the jurisdictions that look at their fish on the spawning grounds are in fact aging these older fish -- or are attempting to age them perhaps is the best way to put it.

CHAIRMAN TRAVELSTEAD: Right. Lew.

MR. FLAGG: Yes, thank you, Mr. Chairman. I was just wondering are we still looking for coded wire-tagged fish? I know there were lots of them put out years ago, and we know the ages of those fish if we can obtain the coded wire tags from them.

I can't remember when the first tagging started, but it has been a long time, I believe, and I'm just wondering if that might be a possible

source of data that might be a little bit easier to get at?

MR. NELSON: I believe New York is still looking to them because I guess they released a lot of them. They do get recaptures back, but the oldest one so far is only like Age 20. I don't think anyone is really looking for them up and down the coast except for maybe New York.

CHAIRMAN TRAVELSTEAD:  
Gordon.

MR. COLVIN: We still look for them in the collections that are made in the fall ocean haul seine survey. And they see a few but increasingly rare, as you might expect. And, again, considering that the ones that we would be interested in would be pretty old now, there aren't that many. They don't encounter them that often. I was wondering if they are picked up in the spawning surveys in the Chesapeake where the big fish would be in spawning now presumably at pretty advanced ages.

CHAIRMAN TRAVELSTEAD: I know VIMS picks up some fish. You know, they set gillnets up on the spawning grounds and certain of the rivers and do pick up samples there, but I don't think they see the really very, very large fish that you've talked about earlier. Roy.

MR. MILLER: We see a few on the Delaware River spawning grounds, but, of course, the scientists involved don't want to kill those fish. And you would have to, obviously, to recover the binary coded wire tag. All you can tell is it was tagged. You don't know when.

CHAIRMAN TRAVELSTEAD: Any other comments on this issue? If not, we'll have the staff proceed with the polling. I would encourage those states that have an interest in

this to start doing it now, don't wait for the staff to poll you.

If you have the funding and the ability to do it, even if it's just the collection part of it, those things can be archived until we find somebody with the capability of reading them. Pete.

MR. JENSEN: Just a note, we do scan. The oldest fish we've found is 19 years old. There is a very limited number of them, obviously.

CHAIRMAN TRAVELSTEAD: Okay, Bob, is there anything else on the agenda?

MR. BEAL: No.

CHAIRMAN TRAVELSTEAD: Vince.

EXECUTIVE DIRECTOR O'SHEA: Mr. Chairman, I apologize for bringing this up, but I notice Andy Cohen is in the room, and some members of the board might not be aware of some of the enforcement action that has been taking place off of North Carolina with regard to the EEZ.

I know that has been an issue, and I don't know if this would be the appropriate place to just get an update from him. The information was passed to the Mid-Atlantic Council, but obviously not all members of the board were present for that.

CHAIRMAN TRAVELSTEAD: Andy, do you want to comment?

MR. ANDREW COHEN: Thank you, Mr. Chairman. Thank you, Vince. I'm Andy, Cohen, special agent in charge of NOAA Fisheries enforcement. A short time ago we finished up an investigation in Virginia involving illegal transportation of striped bass, taking in transportation.

Five people were indicted in that case, and they

should be self-reporting to the U.S. Marshall's Office for arraignment this week or next week. We're hoping that they're going to self-report, so we don't have to go arrest people all over Virginia and North Carolina.

That was an important case. It was called Operation Tangled Web. It was an undercover case that we did in cooperation with the Virginia Marine Resources. There are several other civil prosecutions going on of striped bass cases, but nothing of the magnitude of those indictments.

CHAIRMAN TRAVELSTEAD: Thank you. Tom.

MR. FOTE: I keep getting some questions over the stock assessment that we had last year with the differences that was going on. Are we getting any closer to resolving those conflicts that were going on last year between the two models?

CHAIRMAN TRAVELSTEAD: Gary is shaking his head yes.

MR. NELSON: No. We haven't met yet for the tagging workshop; and when we do, we'll probably be examining the tagging models for violation of assumptions, things like that. And with the VPA, we can't do anything until we get an additional year's worth of data, so that will be August.

DR. GEIGER: Mr. Chairman, I don't know where we are in the agenda, but if the board would like, Bill Cole can give a very quick update of the offshore tagging cruise that was recently concluded.

CHAIRMAN TRAVELSTEAD: Okay, yes, we are at the end of the agenda, so if there are other things people want to do, we've still got 27 minutes. You can have three, Bill.

MR. BILL COLE: Thank you. Let me first respond to the coded wire-tagging situation on the winter tagging cruise. For years we have looked for these things. I don't recall us finding any in the last couple of years; certainly, we didn't find any this year.

One of the problems we have is the wands for discovering these things are getting a little ancient and a little hard to maintain, and they don't last very long out there on that open deck.

But, our protocol certainly requires that any coded wire tag positive signals are sacrificed, and all of the respective parts are used accordingly to many of the various researchers. But, Cruise 18 was rather windy. They had a lot of gear problems, a lot of weather days sitting behind the hook at Cape Hatteras trying to get out of a northeast wind.

The cruise dates were January 23<sup>rd</sup> through February the 3<sup>rd</sup>. Given all of the weather and gear problems that we encountered, we tagged the third highest number of striped bass in the series.

The total number tagged over 18 years now is a little less than 44,000 fish. Once again, we took various processing of counting, measuring, sexing, weighing, tagging, and our otherwise sacrificing of numerous species for something like 21 different species this year for a whole lot of other researchers.

We did not find very many bluefish that NC State needed. We only got one sturgeon this year. Weakfish abundance was rather down, but the few that we did get we saved the otoliths on those.

We also were working with North Carolina Division of Marine Fisheries and VIMS to do some diet studies this year for the first time. And once again, we tagged a fair number of dogfish for the Northeast Science Center.

Summer flounder were not very prevalent, and the ones that we did find were not large. Anyway, for those of you who would like a copy of this, I'll make sure that you do get it. The numbers are being processed as we speak today.

They do not have a size distribution of those fish tagged, but preliminary results certainly suggest that we did not find the larger fish that we would expect to see. A lot of these were in the smaller size ranges. With that, I'll stand any questions that you have.

CHAIRMAN TRAVELSTEAD: Any questions for Bill? Seeing none, thanks a lot, Bill, appreciate the update. Any final comments?

MR. DAN McKIERNAN: Could I ask Andy Cohen to come back. Dan McKiernan from Massachusetts. Could I ask Andy Cohen to come back and explain Operation Tangled Web and the nature of the alleged violations. Was it fishing out of season? Was it quota? Was it EEZ violations? It's not clear to me.

MR. COHEN: Thanks. I don't know the details of it. I only know it from the manager's perspective. I don't actually work for a living any more. But, it's my understanding that this was an organized group of conspirators, and they have been charged with criminal conspiracy, who were harvesting striped bass in the EEZ not under the guise of being a charter boat and not under the guise of being recreational.

They were just pure and simple poachers. I know that it was a large amount of fish. Several tons were caught and sold. And, we actually purchased the fish from them and then turned around and resold them except for the portion we saved as evidence, of course.

MR. McKIERNAN: So that would have been fish that was legal to take, but it was simply a violation of where it was taken?

MR. COHEN: Well, it was not legal to take because it was in the EEZ.

CHAIRMAN TRAVELSTEAD: Okay, anyone else? Ritchie, then Kelly.

MR. WHITE: Thank you, Mr. Chair. Could I ask Anne for an update on the opening the EEZ. I understand that it has been delayed but beyond that, are there any more details?

MS. LANGE: Mr. Chairman, it has been delayed. We are waiting for the results of the next assessment. Again, we were very uncomfortable going forward. Not including the results of the last year's assessment, we really could not do that.

The DEIS would require that the most recent information be incorporated, which would have been the results of the last year's assessment. The fact that the technical committee and the stock assessment committee were not comfortable with those results, we decided the best thing to do was to wait until they were comfortable that there was not an error in the model or the datasets that were used. The DEIS will incorporate the most recent scientific information that's considered to be correct.

MR. KELLY PLACE: I had a question for Mr. Cohen. In Operation Tangled Web, were those Virginia registered commercial fishermen, and were they registered Virginia boats? I'm just curious. We haven't heard much of it.

MR. COHEN: I believe that they were Virginia and North Carolina boats. I don't know about the individuals, but I can find out and give you that information.

CHAIRMAN TRAVELSTEAD: Any other comments? Seeing none, is there a motion to adjourn.

CHAIRMAN TRAVELSTEAD: We are adjourned. Thank you.

(Whereupon, the meeting was adjourned at 9:40 o'clock a.m. on Tuesday, February 8, 2005.)

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