

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
SHAD AND RIVER HERRING MANAGEMENT BOARD**

Crowne Plaza Hotel - Old Town
Alexandria, Virginia
February 7, 2012

Approved May 2, 2012

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These minutes are draft and subject to approval by the Shad and River Herring Management Board.
The Board will review the minutes during its next meeting.

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2. **Approval of Proceedings of November 10, 2011** by Consent (Page 1)
3. **Move to accept the plans from the Delaware River Fish and Wildlife Cooperative, Georgia and the Potomac River Fisheries Commission** (Page 1). Motion by Roy Miller; second by Russ Allen. Motion carried (Page 2).
4. **Move to approve recovery plans as submitted for New Hampshire, Delaware and Pennsylvania.** (Page 2). Motion by Pat Augustine; second by John Duren. Motion carried (Page 2).
5. **Move for approval of the Potomac River Shad Bycatch Request for 2012** (Page 2). Motion by Pat Augustine; second by A. C. Carpenter. Motion carried (Page 3).
6. **Move that the board accept the recommendation to appoint Dr. Winnie Ryan to the Economics and Social Sciences Committee** (Page 19). Motion by Pat Augustine; second by Bill Adler. Motion carried (Page 19).
7. **Move to nominate Terry Stockwell for Vice-chair of the Shad and River Herring Management Board** (Page 19). Motion by Jack Travelstead; second by A. C. Carpenter. Motion carried (Page 19).
8. **Move to adjourn by Consent** (Page 19).

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)	Loren Lustig, PA (GA)
Steve Train, ME (GA)	John Clark, DE, proxy for D. Saveikis (AA)
Sen. Brian Langley, ME (LA)	Bernie Pankowski, DE, proxy for Sen. Venables (LA)
Doug Grout, NH (AA)	Roy Miller, DE (GA)
Rep. David Watters, NH (LA)	Tom O'Connell, MD (AA)
G. Ritchie White, NH (GA)	Russell Dize, MD, proxy for Sen. Colburn (LA)
Mike Armstrong, MA, proxy for P. Diodati (AA)	Bill Goldsborough, MD (GA)
Bill Adler, MA (GA)	Jack Travelstead, VA, proxy for S. Bowman (AA)
Rep. Sarah Peake, MA (LA)	Catherine Davenport, VA (GA)
Mark Gibson, RI, proxy for B. Ballou (AA)	Michelle Duval, NC, proxy for L. Daniel (AA)
Rick Bellavance, RI, proxy for Rep. Martin (LA)	Mike Johnson, NC, proxy for Rep. Wainwright (LA)
Bill McElroy, RI (GA)	Ross Self, SC, proxy for R. Boyles (LA)
David Simpson, CT (AA)	John Frampton, SC (AA)
Lance Stewart, CT (GA)	Pat Geer, GA, proxy for S. Woodward (AA)
James Gilmore, NY (AA)	Aaron Podey, FL (AA)
Brian Culhane, NY, proxy for Sen. Johnson (LA)	John Duren, GA (GA)
Pat Augustine, NY (GA)	Daniel Ryan, D.C.
Russ Allen, NJ, proxy for D. Chanda (AA)	Jaime Geiger, USFWS
Tom Fote, NJ (GA)	A.C. Carpenter, PRFC
Leroy Young, PA, proxy for J. Arway (AA)	Steve Meyers, NMFS
Gene Kray, PA, proxy for Rep. Schroeder (LA)	

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

Ex-Officio Members

Pam Lyons Gromen, Advisory Panel Chair

Larry Miller, Technical Committee Chair

Staff

Vince O'Shea
Bob Beal

Kate Taylor
Chris Vonderweidt

Guests

Dave Bethoney, SMAST
Greg Wells, Pew Environ. Group
Theresa Labriola, Pew Environ. Group
Matt Cieri, ME DMR
Ellen Cosby, PRFC
Dave Ellenton, Cape Seafoods, Inc.
Steve Weiner, CHOIR
Bob Ross, NMFS
Charles Lynch, NOAA

Wilson Laney, USFWS
Dan McKiernan, MA DMF
Peter Burns, NMFS
Roger Fleming, Earthjustice
Kristin Cevoli, Herring Alliance/PEG
Lori Steele, NEFMC
Patrick Paquette, Hyannis, MA

Derek Orner, NMFS

The Shad and River Herring Management Board of
the Atlantic States Marine Fisheries Commission

convened in the Presidential Ballroom of the Crowne Plaza Hotel, Alexandria, Virginia, February 7, 2012, and was called to order at 11:43 o'clock a.m. by Chairman Michelle Duval.

CALL TO ORDER

CHAIRMAN MICHELLE DUVAL: If members of the Shad and River Herring Board could please take their seats, we're going to go ahead and get started. First of all, I'd like to welcome everyone. For folks who don't know me, my name is Michelle Duval. I'm the new Chair of the Shad and River Herring Management Board.

APPROVAL OF AGENDA

CHAIRMAN DUVAL: The first item we have is the agenda. Are there any modifications to the agenda? Seeing none, the agenda stands approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN DUVAL: Our next item is the proceedings from our previous board meeting at our November annual meeting, from November 10th. Are there any changes to those proceedings? Seeing none, the proceedings stand approved.

PUBLIC COMMENT

CHAIRMAN DUVAL: This is the point in the agenda where we allow public comment on items that are not on the agenda. Are there any members of the public that wish to address the board on items that are not on the agenda? Okay, seeing none, the next thing we have is a presentation on our American Shad Sustainable Fishery Plans, and I believe Mr. Miller is going to run us through that.

PRESENTATION ON AMERICAN SHAD SUSTAINABLE FISHERY PLANS

MR. LARRY MILLER: I'm going to let Kate take over for this because she actually was instrumental in preparing the slides that we have, so she is more familiar with the material that is there.

MS. KATE TAYLOR: As the board is aware, the requirement of Amendment 3, which is dealing with American shad management, states are required to submit their fishing and recovery plans for their American shad fisheries. As you remember at the November 2011 meeting, the board did review plans from some states and approved plans from South Carolina and Florida.

Prior to that meeting the technical committee also reviewed plans from the Delaware River Fish and Wildlife Cooperative, Georgia and the Potomac River Fisheries Commission. At that time the technical committee did not recommend approval of these three plans and asked for additional items from these jurisdictions.

These jurisdictions resubmitted their plans with the requested information, which the technical committee reviewed at their meeting in January. The technical committee recommends that the board consider approval of these three plans. Additionally, the technical committee also reviewed a plan from the state of North Carolina, which was requesting a fishery for the Albemarle Sound/Roanoke River, the Tar/Pamlico, the Neuse and the Cape Fear Rivers.

The technical committee recommends the board consider approval of the fishing plan within the Albemarle Sound/Roanoke River, the Neuse and the Tar/Pamlico Rivers. The technical committee found that the Cape Fear System is currently not sustainable based in the indices presented in their fishing plan.

The technical committee recommends consideration by the state of either closure of the system or a modified fishery with continued monitoring. The technical committee also recognizes that North Carolina will still have to go their own Marine Fisheries Commission Review Process and public comment process with their plan.

Additionally, the technical committee reviewed recovery plans from a number of jurisdictions. The technical committee recommends the board consider acceptance of the recovery plans from New Hampshire, Delaware and Pennsylvania. The technical committee requested additional information from the state of Maryland and the District of Columbia.

Also, I would like to point out that the technical committee thought that the plan from Pennsylvania was an adequate plan for the habitat recovery plans that states will be required to submit next year, and that the plan from Pennsylvania would serve as a good template of that plan that states will have to submit. Additionally, plans have yet to be submitted from Maine, Rhode Island, Connecticut, New York, New Jersey and Virginia. Thank you, Madam Chairwoman.

CHAIRMAN DUVAL: Thank you, Kate. At this point I think we would entertain a motion to approve the sustainable fishery plans for the Delaware

Cooperative, PRFC and Georgia, if anyone would consider making that motion. Roy.

MR. ROY MILLER: I move that we accept the plans from the Delaware River Fish and Wildlife Cooperative, Georgia and the Potomac River Fisheries Commission.

CHAIRMAN DUVAL: We have a motion; is there a second; Russ. Is there any discussion on that motion? Do states need time to caucus? A.C.

MR. A.C. CARPENTER: Was there a reason North Carolina was left out of that?

CHAIRMAN DUVAL: I can go ahead and answer that, A.C. Although the TC recommended approval of three of the four systems that North Carolina was asking for a sustainable fishery plan, they did request some additional information be included in the sustainable fishery plan and also recommended going back and doing a little bit more work on the Cape Fear System.

We thought it would be more appropriate to take that plan back to the workgroup that we have at the state, add that additional information, let the TC review it one more time, and the board could see it in May. Russ.

MR. RUSS ALLEN: I just want to take this time to thank the members of the Delaware River Cooperative, specifically New York, Delaware, Pennsylvania and U.S. Fish and Wildlife Service and NMFS for an awesome cooperative effort that we put forth for a shad fishery throughout the Delaware. We like to see some of the other systems use this as a template to move forward with their different state jurisdictions in how they have to handle things.

It was a very rewarding effort. We had some really good stock assessment people involved with that, some high technical people and even some management level people; so a very good job by everyone there and I just want to put that out there. Thank you.

DR. JAIME GEIGER: I just want to reemphasize and second Russ' comments. This Cooperative has been in existence for many, many years and the level of cooperation, collaboration and consultation and work on the ground to support shad restoration is just outstanding.

Again, I really think this does set a good, strong model for other state and federal cooperation on a species-specific basis. I would look to this

Cooperative as that model. Again, I congratulate all the fine biologists and managers that have been involved in this effort to make it so successful. Thank you, Madam Chairman.

CHAIRMAN DUVAL: Are there any other comments before we vote on this motion? Do states need time to caucus or is everyone ready to vote? It looks like we're ready to vote. Those states who are in favor of the motion please raise your right hand; those opposed; abstentions; null votes. **The motion passes with 19 in favor.** I think we might also need a motion to accept the recovery plans by the states of New Hampshire, Delaware and Pennsylvania. Is there someone who would be willing to make such a motion? Pat.

MR. PATRICK AUGUSTINE: Madam Chair, move to approve recovery plans as submitted for New Hampshire, Delaware and Pennsylvania.

CHAIRMAN DUVAL: Is there a second to that motion; John Duren, thank you. Is there any discussion of that motion? Bill.

MR. WILLIAM A. ADLER: Is it separate, the Maryland and District of Columbia one; is that coming up next or is that separate or what?

MS. TAYLOR: The technical committee requested additional information from Maryland and the District of Columbia, and those two jurisdictions are going to work on those plans, which will be resubmitted and reviewed by the technical committee and potentially reviewed by the board at the May meeting.

CHAIRMAN DUVAL: This seems fairly straightforward. Is there any opposition to this motion? **Seeing none, the motion stands approved.** The next thing on our agenda is consideration of 2012 American Shad Bycatch Request, and Kate will be taking us through this.

2012 AMERICAN SHAD BYCATCH REQUEST

MS. TAYLOR: At the ASMFC annual meeting in November the board preliminarily approved a bycatch request for American shad from the Potomac River Fisheries Commission with the understanding that the additional information requested by the technical committee would be included in a resubmitted report.

The Potomac River Fisheries Commission included this information and submitted their report to the technical committee. The technical committee reviewed the report at their January meeting and recommends that the board consider final approval of the Potomac River Shad Bycatch Request for 2012.

MR. AUGUSTINE: Madam Chair, move that the board approve the proposed bycatch and increase of their commercial allowance.

CHAIRMAN DUVAL: Is there a second to that motion; A.C. Is there any discussion on that motion? **Seeing none, the motion stands approved.**

UPDATE ON THE RIVER HERRING BYCATCH AVOIDANCE PROJECT

CHAIRMAN DUVAL: The next item on our agenda is actually an update on the River Herring Bycatch Avoidance Project by the Sustainable Fisheries Coalition, the School of Marine Science and Technology and the Massachusetts DMF. I believe Dave Bethoney is here to give us that update.

MR. DAVID BETHONEY: Thank you very much. I'd also like to thank the management board for allowing me to come down here and make this presentation. This project is a cooperative project between the Massachusetts Division of Marine Fisheries, the University of Massachusetts-Dartmouth and the Sustainable Fisheries Coalition, which represents the majority of the midwater trawl vessels that harvest Atlantic herring and mackerel.

The project has two primary goals. The first goal is to expand the Massachusetts Division of Marine Fisheries portside sampling program. The theory behind this is to give us a better idea of where, when and how much river herring is being taken by these vessels and to provide the Initiative with an information source. Additionally, we could achieve some biological information such as river herring lengths.

The second objective is to reduce alosine bycatch, and I'll be using the term "alosome" throughout this talk, and I'll be referring to both river herring and American shad. To achieve this goal we had two tactics. The first was to develop near real-time bycatch information systems. The theory behind this is to let the captains know as soon as possible where they're encountering large amounts of river herring and shad in hopes that they'll avoid going back there.

We ran two of these systems to completion in the winter of 2011 and the fall of 2011 and are currently running programs right now. The second metric was to test for environmental pictures of bycatch. The idea behind this was to take a proactive approach in trying to identify areas where the vessels were likely to encounter large amounts of alosines without them actually having to catch those fish.

The format of this talk is going to talk a little bit more about how the portside sampling program relates to this project and then really talk about the two tactics that we're taking to reduce alosine bycatch and focusing on these near real-time information systems as we've done the most work in that area.

The portside sampling program has three goals in relation to this project. As I mentioned before, the primary goal is to provide the system with accurate and timely catch information. This can be difficult in a midwater trawl fishery because of the amount of target species that are taken in comparison to river herring and shad and also the similarity of the species.

This picture in the top here is trying to demonstrate that with a river herring amidst the distribution of Atlantic herring. This is representative of a high bycatch event; this ratio of fish. To compensate for this or overcome this, portside samplers take a systematic sample during the entire offload of a vessel. The second goal was to sample 50 percent of trips landed in Massachusetts.

This represented a significant increase from the 15 percent that have been occurring prior to this project. We also thought it would give us a good idea of what is happening in the fishery since the majority of landings do occur in Massachusetts. The third goal was to help us establish communication systems.

By getting the scientists involved in the portside sampling program, getting us down to the docks, into the plants, it gets us face to face with the captains and other industry members, talking about what might work, what needs to be improved and other ways to adjust the program. We also established a joint e-mail address where the vessels could notify us when they're leaving and when they're coming into port as well as other details and we could issue bycatch advisories as well.

These advisories are part of this near real-time information system; the first of which we ran from January to March of 2011, and we focused in one area that has been identified by several sources as a

high alosine bycatch area. It is depicted here in this figure off the coast of New Jersey, the Hudson Canyon Region.

We wanted to reduce the spatial scale of this area, and to do that we talked to the captains and figured if we use the 10 minute longitude lines and the 5 minute latitude lines we could create a grid in this area of an appropriate spatial scale for the fishery. Then if we gave each row a letter label and each column a number label we could simply e-mail the vessels the combinations of letters and numbers that would refer to a specific area on this grid that the vessels would understand if they had this grid in their possession.

We turned it into a handout that was distributed to all the captains by hand and by mail. With a way to easily communicate information, the next step was to try to figure out what exactly is a high bycatch event. There is no cap in the fishery for alosine bycatch. There is also no really biological metric to go by.

To answer this question we looked at the largest data set available and that was the Northeast Fisheries Observer Program Midwater Trawl Data Set. This figure shows on the vertical axis the total amount of river herring and shad observed. The horizontal axis is a single tow and it's arranged from lowest to highest.

You can see there is a distinct pattern to this; that there is a small amount of tows or very large tows that account for the majority of bycatch. In this figure you have 35 tows out of 343 accounting for 80 percent of the bycatch by weight. With this mind, we thought if we could identify areas where these tows were occurring and reduce the frequency of this type of tow, we could reduce the overall amount of bycatch occurring.

To identify these areas and these tows, we came up with a threshold scheme of identifying tows as high, moderate or low based upon the percentage of alosine bycatch compared to the amount of target species caught. You can see the different thresholds here; that above 1-1/4 percent would be high and less than 0.2 percent is low.

The next few slides are going to show the results from the complete information systems beginning with the winter of 2011. You're going to see several figures of this New Jersey grid. The cells that are green represent low bycatch events; yellow is moderate; red is high. The numbers inside each cell

are the amount of tows that occurred through the time period, which is displayed on the bottom.

In this figure it says 2/1 in the middle, so that means this is basically what happened through February 1st, the month of January. You can see that effort in this grid was focused in the northwest region. Only low bycatch occurred. As you progress through the first two weeks of February in the same region, we start seeing high and moderate events.

As you move through the last two weeks of February into March, we saw that same pattern again, but now we have seen the fishery move to the southeast portion of the grid and only low bycatch was encountered there. I should mention that the advisories we issued reflect what you're seeing in these cumulative grids here.

Then through the month of March into April we had effort primarily focused in that southeastern region and low bycatch was maintained and some effort was back to that F row in between the high and low bycatch areas. In the fall we ran a similar system. However, this fishery was a little bit different as in the winter. It was a relatively long three-month fishery.

This fishery was occurring off of the southern coast of Maine and the northern coast of Massachusetts, Area 1A of the herring management plan that is closed to midwater trawling until October 14th. There was about a two-week period where they wanted to be in this general area, so we'd use a combination of tactics.

The first was to have the information grid, which we issued two advisories and sampled almost all the vessels that landed during this time period. The first advisory identified the northern region as having low bycatch, and the second advisory reiterated this, but also noted that C and D rows now had moderate bycatch.

As I mentioned, we anticipated a short fishery so to compensate for this we tried to circulate depth information that we had found out through environmental analysis and greater than fathoms of depth they were unlikely to encounter large amounts of alosines. We distributed that both by word of mouth and through a mailing, and it does seem like there is some evidence to support that this was listened to as the mean tow depth was 53 fathoms, significantly greater than 40 fathoms, and the fishery was deeper than previous years with greater than ten

observations and significantly deeper all years except for 2009.

As we moved to look at metrics to evaluate the long-term utility of this type of program, if it can be used effectively, there are really two interannual criteria to look at. The first is collaboration; is this more than a collaboration in name only; is there evidence that the fleet is working with us and that we're altering fishing behavior?

From the participation standpoint, we are working with ten midwater trawl vessels, which is the vast majority of the fleet. We have had consistent communications throughout this entire program. Hundreds of e-mails have been sent. The captains have also been good about filling out these MADMF trip logs, which you see as a figure in this slide.

These logs give us detailed tow locations and tow sizes. If they do forget to fill out these logs and we can't get to them when they land, we just exchange phone calls. Sometimes they will just call us or we'll call them and get the information that way. From a behavioral standpoint, there also seems to be some evidence of cooperation. We've classified five cells in those two programs run to completion as having high bycatch. Only one was re-entered.

It did account for 25 percent of the bycatch we saw during that time period, so there is room for improvement, but it does suggest that they are listening to the advisories. We also had the fall depth advice that seems to be listened to. The second metric is bycatch reduction; can we show that this program is changing the amount of bycatch this fishery occurs?

We are looking at some direct measures such as comparing the bycatch rates between participating and non-participating vessels and seeing if we can change the profile of bycatch in this fishery. As I mentioned, there were few really high events, so can we find evidence that we're reducing the number of those events?

The other factor is, is there spatial/temporal separation between a target and alosine species if we can get the vessel to listen to us and to move from areas of high alosine bycatch? Is there evidence that they can move to an area where they'll get consistent low alosine bycatch but still adequate amounts of target species?

If you look at last winter's system, we do see some evidence of that with the fishery beginning in the

northwestern area and 75 percent of the effort in terms of the amount of tows and 75 percent of the target catch in terms of weight occurred in this area and notice almost all the alosine bycatch as well. As the fishery progressed through the winter, we saw it move to the southeastern area where effort still reflected target catch but now alosine bycatch had decreased to almost none compared to the total seen in that time period.

This winter we have continued to work with the midwater trawl fleet. We started in December of this year instead of in January. We've also added another grid off of Rhode Island. We're also trying to do a similar system with Rhode Island Small-Mesh Bottom Trawl fishermen. If you're interested in following what we're doing, we have a website that you can get to through the SMAST main page by clicking on the Bycatch Avoidance Tab.

If you were to click, for example, on this top link here, it would bring you to our work with the small-mesh fishermen out of Rhode Island. This work includes five vessels. We've sampled over 50 trips since the middle of December, which represents a lot of increase in the knowledge of what is being caught in this fishery since only 75 trips were observed from 2007-2011.

We've also adapted this program. We've used different thresholds and we reduced the spatial scale with one cell in this grid seen here in this slide being equal to a quarter of a cell in the midwater trawl grid. If you're interested in finding updates, you can go to the website. We're also trying to improve this not only by adapting it to other fisheries but by including environmental information to predict where high bycatch events might occur.

This thought came from the fact that all five of these species make predictable seasonal migrations and their distribution have been linked to environmental parameters in published research. Our goal is to further investigate these links and see and assess these correlations and see if they will be useful in avoiding bycatch; and if so, to share that with the fleet. To do this, we need catch-at-sea information. Right now we're focusing on using the National Marine Fisheries Bottom Trawl to build these correlations using a binary catch variable, so not necessarily presence or absence but some kind of threshold that indicates a large event or a small catch of alosines. That will allow us to compare catch or that variable to measurements that are taken during the bottom trawl survey and see if they increase the probability this binary variable will be a positive.

To test this to see if it will be useful, we plan using the Northeast Fishery Observer Program Midwater Trawl Data Set, and we can do that by linking environmental parameters from the finite volume community ocean model developed at UMass Dartmouth to the time and location of where the observer program documented these catches, and we can see if the predictions are holding true in reality.

I just want to mention that this analysis is planned to be restricted to the winter. This is where most of the bycatch occurs in the midwater trawl fleet. It's also the time period where the bottom trawl and the fish are in the same location, and it will help to alleviate problems caused by the animals being in a different migratory state depending on season and other restrictions that are caused by the difference in location of the animals.

I would like to thank all the vessels we have worked with, all the port samplers which includes people from Maine and Rhode Island state organizations and also funding from the National Fish and Wildlife Foundation that we're funded through this summer hopefully we can use this towards a PhD. If anybody has questions, comments or thoughts on how we can improve this type of work, I'd appreciate to hear that because, as I mentioned, we're always trying to adapt and figure out how to make this work for both the river herring species complex and the fishery.

CHAIRMAN DUVAL: Thanks a lot for that, Dave. I see a couple of folks who have questions or comments. Terry.

MR. TERRY STOCKWELL: Dave, great project and great presentation. The one question I have is the impact on the CPU of the targeted species and for the efficiency of the vessels that are relocating; have you tracked that.

MR. BETHONEY: We have not looked at that specifically. It's something that we want to look at and something that affects the utility of this program is we've seen that when you ask vessels to move on a larger scale over fish, they're less likely to do so. If you can move them on a smaller scale where there seems to be abundance of target species in that general area, maybe one specific subset of that area has alosine species. It's definitely something that we'd like to look into.

REPRESENTATIVE SARAH K. PEAKE: Thanks, Dave, for your presentation. I have to say I feel a little bit of pride in Massachusetts and UMass

Dartmouth and the SMAST Program, so thanks for the good work on this. A couple of questions and I may have missed this in your presentation; your observer coverage, was it all shoreside or was there any on-board observation as you're monitoring the bycatch?

MR. BETHONEY: This program focuses on shoreside, but we do work with the Northeast Fishery Observer Program. This communication flow tries to show that – on the bottom right you see the NFOP there, and we work with the observer program. They send us logs when they've caught river herring within five days and we also try to communicate with them on just oral descriptions of the tow. They can get tow-by-tow resolution.

Shoreside you can only get trip resolution so when you have large bycatch events it's important to try to tease out where that happened. It also helps to corroborate what the captains are filling out to what the observer has in their log. We have seen very corroboration between those two data elements.

REPRESENTATIVE PEAKE: That's great, thank you. At previous meetings I have advocated for a hundred percent on-board observer coverage so we know exactly what we're catching, and I would just reiterate that again today. My next question or follow-up question is looking at the slide that you showed up there with SMAST Program and how this is modeled in some ways after the scallop bycatch with yellowtail, that program, as I recall, has catch caps. Do you think there is a movement towards putting a catch cap on river herring for this? As you gather more data, do you see us moving in that direction?

MR. BETHONEY: There definitely is a move toward that direction. It's in both Amendment 14 and Amendment 5 to some degree of having a catch cap on river herring bycatch. It would help if we could get more information on what stocks these river herring are coming from at sea to help us get a better idea of what the biological impact of the bycatch is, which could help determine biologically based caps which would be the best mechanism out of a bycatch cap if you have to put one in.

MR. MARK GIBSON: The information I've seen seems to be that the bycatch events are categorized by the percentage of shad and river herring that's in the sea herring catch. There are basically three tiers; is that correct?

MR. BETHONEY: Yes.

MR. GIBSON: Okay, it seems to me that the means for categorizing the severity of the bycatch events needs more information than that. The percentage of the alosines in the sea herring catch is always going to be small simply because sea herring populations will dwarf the size of river herring populations.

At this time of year, in the first quarter of the year as river herring stage closer and closer to their spawning areas at least my concerns in Rhode Island get larger as bycatch events occur. It seems to me that you need to incorporate somehow the absolute magnitude of bycatch events; that is, how many fish were in that particular catch event and not as a proportion of the sea herring catch but as a fraction of the local populations that they're likely to be drawn from.

That's the better measure of the impact. I don't really care what the percentage is in the sea herring catch. It doesn't tell me very much because those are giant populations and that's always going to be the case. I don't find the percentages to be particularly enlightening; but the absolute magnitude as it is coming in and particularly as it gets in the vicinity of this quarter of known runs that are being monitored for known sizes, which is happening in Rhode Island and Southern Massachusetts, it would seem to be a more relevant source of information for the industry to judge its potential impact. Thank you.

MR. BETHONEY: I agree with that but the problem is that information is not available, so we can't create that kind of very solid indication of the impact from our own classifications. Another thing is that the ratios are intended to try to get at the absolute values. With all these tows you see in this figure that were greater than 2,000 kilograms, they all fell into that percentage of having more than 1-1/4 percent river herring and alosines, and the ones that had the percent of less than 0.2 percent had less than 900 kilograms of river herring.

It was an attempt to try to get at absolute values without using absolute values; because one of the problems of using an absolute value is that the vessels have different catch sizes. So if you have a small vessel or a small trip, if your threshold is 2,000 kilograms and the vessel comes in and makes a hundred metric ton two and catches 1,500 kilograms of river herring, that would be under your threshold.

But then a larger vessel, based upon that advice, comes in and makes that same tow with that same portion of river herring to target species, you're going to wind up giving them bad advice and they're going

to get a really big catch of river herring. I agree that it would be definitely ideal to move to some kind of classification that is based upon something biological or to a cap.

CHAIRMAN DUVAL: Thanks, Dave, good comments. Are there any other comments or questions for Dave? Doug.

MR. DOUGLAS GROUT: Just for clarification on how these grids worked in your presentation and on the report here is you have one picture here of a grid that was done in 2/1 and there were a couple of tows and the DNE rose and then some that had single tows. Then you have a 2/17 and the DNE rose – it looks like additional tows so you're adding on new tows that were done in there; and then there was one that suddenly lights up as red and will remain red through the next iterations even as subsequent tows are put in there; correct?

MR. BETHONEY: That is correct; the information in those grids is cumulative so it's never going to go down, and then it stays red unless someone goes back in there and had a tow that was low, which didn't happen in this case.

MR. GROUT: And just a follow-up comment; I agree with Mark, I think we've really got to be somehow getting at what the absolute bycatch is of river herring in these tows because that really is the critical part from a management standpoint. I understand your threshold was set on 2,000 pounds or kilograms?

MR. BETHONEY: Kilograms.

MR. GROUT: Kilograms, so I think at some point – I can understand during this period how you might be looking at it from a percentage standpoint, but it would be ideal to know the absolute poundage in the magnitude of these catches.

DR. GEIGER: Again, you know, certainly Mark and Doug made excellent points and continue to excellent points. I guess when are we going to get this kind of information? It seems we have these discussions year and year out and for a variety of different reasons we don't continue to look for what is the best biological source of information we need to do to make good management decisions. I would ask that we don't lose sight of Mark's question and that we don't lose sight of what we need to do to address that question in reasonable, responsible manner. Thank you, Madam Chair.

CHAIRMAN DUVAL: I believe Kate has a little bit of information that might inform some comments by board members.

MS. TAYLOR: Duke University is currently conducting genetic analysis of at-sea-caught river herring. Many of our Shad and River Herring Technical Committee members have offered to provide samples Duke so that they can further their analysis. This is I believe the second year that they are running the program and they're further refining their analysis. Of course, this work is not yet complete.

MR. DAVID SIMPSON: To that, I've heard information lately that suggests that there may not be nearly the – what am I trying to say – that there is likely to be just a couple of stocks and not hundreds of stocks; and the whole premise that we have been managing on that individual system runs of bluebacks or alewives are in fact – you know, show a degree of fidelity to that system; that assumption may not be correct. I wonder if this work so far that Duke has conducted could shed any light on that as we go through this process of developing sustainability plans system by system by system.

MR. MILLER: The results of the Duke Study haven't been made available yet, so I guess the jury is still out with respect to that question. As it becomes available, we'll apprise the board of that information.

MR. BETHONEY: We're actually working with Duke to provide them bycatch samples, so I can talk a little bit about what they're doing and what they have found out. Everything is preliminary, but from a genetic standpoint they do feel confident that they can identify the fish on a regional level, which would suggest that it's not just a couple of discrete stocks, but there are multiple. They're also using otolith chemistry that has indicated that you might be able to identify fish to a watershed, but there is definitely this incredible mixing in the ocean possibly that is a big question that needs to be answered to what degree that these stocks are mixing.

MR. AUGUSTINE: Thank you; very good information. The comments that were made relative to what we need to do in order to get this information brings us right back to our conversation yesterday morning where we had our Legislators and Governor's Appointee Workshop. It just seems to me here is another item that's super-critical that our representatives might want to move forward for consideration to put emphasis on our need for additional funding. I think it's a point that needs to

be carried on through the board process to the ISFMP and back to the folks that put on a presentation for us and that represent us when they go up on the Hill to generate funds.

CHAIRMAN DUVAL: Thanks, Pat. Other comments or questions? I see a couple of folks in the audience. Very quickly, if you'd like to come up, please state your name and any organization you're representing.

MR. STEVE WEINER: My name is Steve Weiner and I represent the CHOIR Coalition, which is an organization that is interested in the proper management of herring. Mostly Atlantic herring is where I spend most of my time. I also represent ABTA, which is the bluefin tuna organization.

Dave, I think it's a great project that you have going on here, but I look at it as more as a tool to manage the fleet, to move the fleet along away from high catches of river herring. What I mean by that specifically is if this fishery had a cap, which is probably what it ought to have as someone that has been watching these proceedings for a long time, it would be good for the fishing fleet to have this kind of a tool because it moves them away from fish and prevents them from catching their cap, which would then inhibit their catching herring.

This is a great tool for the fleet. I personally don't see it as a great tool for management of river herring unless – and I just have a few questions. The observer coverage, is it the same observer coverage as whatever is being observed – you're not mandating anymore observer coverage than what is already in place; is that true?

MR. BETHONEY: In terms of the NFOP observers or –

MR. WEINER: Right.

MR. BETHONEY: This is a separate project. This is just portside sampling; so whatever they're observing, they're going to observe independent of us.

MR. WEINER: And how do you handle like knowing how many tows have been dumped or if tows have been dumped what is in those tows?

MR. BETHONEY: We've talked to fishermen about that and we've asked them to disclose if they do dump tows and we can also communicate with observers to find out if that happens.

MR. WEINER: But there aren't observers on all the trips, though?

MR. BETHONEY: Right.

MR. WEINER: So what I guess I wanted to say is the contentious issue in Amendment 5 in New England and what has driven it for four years and what has got the public so up in arms is that we want to know how this fishery is being monitored. We're concerned with dumping. It's dumping basically that brought us all to these meetings.

I have never come to a meeting like this until certain fleets showed up in our backyard in Maine. Until we have enough observer coverage, which I think is a hundred percent, on these boats we are not going to know what is being dumped. Human nature is if you bag full of fish that you shouldn't be bringing in, it's human nature you're not going to bring it in.

With this kind of scrutiny, you're just not going to do. I would like to see this program include maybe more – ask for more observer coverage. Do you do test tows; that's the other thing I was going to ask? The catchability of this fleet, with the amount of fish that they can catch in one tow is so great; do you in any way inhibit – do you sort of support the thought of test tows before you put the gear overboard?

MR. BETHONEY: We haven't done that with the midwater trawl fleet. We have done that somewhat with the smaller boats. We look at this system as an information system for captains to use. It's not trying to dictate exactly what they do or change an entire way they fish. It's an information system.

MR. WEINER: Right, and I guess that is my concern is that – it's a good program and I'm not critical of it, but I don't think it's really meant to manage river herring unless you do things like increase observer coverage and test tows and other things that would really show us what is going on. Thank you for the time.

MR. PATRICK PAQUETTE: I'm Patrick Paquette. I'm a recreational fishing advocate from Massachusetts. I'm just trying to understand or make sure that I'm clear about a couple of the aspects of the program. Dave, you said ten vessels are participating. Are you guys tracking or collecting any information on the vessels in the program and their movement and where they're fishing as opposed to vessels not in the program to sort of show that it's

actually working, that vessels are behaving differently?

MR. BETHONEY: Yes, that's one of the measures we're trying to look at in terms of the bycatch rates of the vessels not participating and the bycatch rates of the vessels participating, and also we could look at their movement patterns. It's going to be difficult to do that. With so many of midwater trawl vessels participating, there is not really that control group to look at. That's something we're trying to overcome.

MR. PAQUETTE: Are you collecting any information – when you're doing the shoreside bycatch analysis, are you lining that up with – or are you even able to line it up with dumping events so that you know whether you're actually seeing the full bycatch picture or not? Are you doing any work in the program as far as trying to match them up?

MR. BETHONEY: Not dumping events, but we match up what the shoreside observers observe to what the observers observe when they're on a boat and there is very high correlation between those two different mechanisms of analysis.

MR. PAQUETTE: And one more; you made a statement and I was confused the way you said it. You mentioned something about when you're not able to see the catch, there is sort of a telephone interaction with the captain.

MR. BETHONEY: Not when we're not able to see the catch; it's if we are sampling the catch and we're not able to get the trip log in time or fast enough to get the information back out, we'll call the captain for him to describe the information that's on these logs. This information is where were you fishing, how much total did you catch. It has nothing to do with catch composition. That's all from the portside monitoring or from the observer program.

MR. PAQUETTE: One more; there was a rumor a while ago that you guys are only seeing what is being processed through the plant as opposed to what is being pumped directly into trucks on offload; is that true?

MR. BETHONEY: That is not true, we sample at the watering boxes that go directly in the trucks.

PRESENTATION OF NEFMC DRAFT AMENDMENT 5

CHAIRMAN DUVAL: I think we're going to move on to our next agenda item here, which is a presentation of Amendment 5, and I believe Lori Steele is here to do that. Thanks very much, Dave. That was a lot of great information and we really appreciate your coming here and giving your time to the board.

MS. LORI STEELE: Okay, my name is Lori Steele. I am the Herring FMP staff coordinator for the New England Fishery Management Council. I am here today to give you an overview of the elements of Amendment 5 to the Atlantic Herring FMP that address river herring bycatch. I've been here a few times and we've talked about Amendment 5 a few times, so hopefully this isn't entirely new information for everybody around the table.

We are at the point now of moving towards public hearings for Amendment 5, so we have a range of management alternatives that have been approved by the council and analyzed in a Draft EIS. In terms of where we are with the timeline, I'll start with this. This is the last slide in my handout, I apologize.

We did have a range of alternatives in the Draft EIS approved by the council at the September council meeting. I submitted a preliminary draft to the National Marine Fisheries Service in late November. We got a lot of comments back on the preliminary draft and I just finished the final formal Draft EIS in late January.

The formal Draft EIS is currently under review; and as soon as it moves its way through the process, we anticipate starting public hearings. Unfortunately, I'm still sitting here waiting for word that it is actually going to move its way through the process. I have all the public hearings scheduled and I'm ready to go.

We're hoping that we are going to have a 45-day comment period on the Draft EIS during March and April with most of the public hearings occurring in the later part of March. If we can meet this timeline, the New England Council will be selecting final measures for Amendment 5 at the April council meeting, at the end of April.

We'll come back in May and let you guys know what our final measures are. Hopefully the amendment and all of the elements of the catch monitoring program and any additional measures will be implemented by the start of the next fishing year. I'll go through the presentation as quickly as possible. It looks like a lot more than it is, but there are some

summary slides that may be helpful for reference in terms of some of the measures and things and hopefully you can read them.

On your disk I believe you were given the September version of the Draft EIS, which is the version that the council approved. That's an old version of the Draft EIS; however, for your awareness none of the measures have changed. All of the measures that are described in the amendment are still under consideration. All of the elements of the analysis are there.

Once we have the formal EIS approved by NMFS, I will be able to distribute and I think you'll see there has been a lot of work done in terms of rewriting the document. All of the elements of the document are in the version that you have at least in terms of considering the range of alternatives and their potential impacts. The overall goal of Amendment 5, which we did start quite a while back when it was Amendment 4, is to develop an amendment to improve catch monitoring and obviously to comply with the Magnuson-Stevens Act.

There are several objectives that are laid out here on this slide. The biggest issues in Amendment 5 relate to catch monitoring and addressing river herring bycatch. The alternatives in Amendment 5 essentially fall into four general categories; adjustments to the fishery management program, which a lot of that relates to catch monitoring and reporting; catch monitoring at sea; measures to address river herring bycatch; and measures to address midwater trawl access to the groundfish closed areas.

Right now in this presentation I'm just going to focus on the measures to address river herring bycatch primarily. This is just sort of a graphic that kind of tries to visually display the alternatives in the amendment and how the measures all relate to each other. This presentation will focus on the lower left quadrant there, the green, which are the measures to address river herring bycatch.

However, there are several measures that proposed as part of a catch monitoring program and part of the catch monitoring at sea that also address river herring bycatch, so I'm going to touch on those as well. This afternoon, for those of you who are on Herring Section, I'm going to try to go through the other stuff without being overly repetitive.

In terms of the lower left quadrant there in the green management alternatives, these are the management alternatives that the council is considering to address

river herring bycatch specifically. They are in Section 3.3 of the larger document, and they're spatial-based management approaches.

You'll see, as I go through the presentation and in the document, depending on what the goal is, each alternative is associated with a management goal, and then there are several options for how to achieve to that goal under the alternatives. The first alternative, obviously, is no action. The second alternative, the goal would be monitoring of river herring bycatch and avoidance to the extent possible, so within Alternative 2 for monitoring and avoidance there is a suite of options being considered.

And then within Alternative 3, the goal for Alternative 3 is protection, so there are a couple of options under consideration for protecting river herring under Alternative 3. Just a quick slide here to show you and just give you an idea of the vessels in the fishery and how many vessels we're talking about; the herring fishery is broken up by four permit categories; A, B and C being limited access and D being open access.

A and B are the directed limited access vessels. These are the major players in the fishery. Area A permit holders have access to all management areas. Area B permit holders have access to areas two and three only and not the Gulf of Maine. But A and B are sort of the major vessels; they make up about 98 percent of the catch in this fishery, so you're looking at about 46 vessels.

The Category C are your limited access incidental catch vessels. These make up another maybe 1.5 percent of the catch in the fishery. So together the limited access fleet is 100 vessels, and then are over 2,200 open access Category D permit holders. These vessels all participate primarily in other fisheries. The Category D permit is limited to three metric tons of herring or 6,600 pounds and anybody can get that permit. Within all of the measures in Amendment 5, the council is considering which permit categories these measures are going to apply to.

The document is constructed in such a way that right now the catch monitoring program, the observer coverage, all of the major elements of the catch monitoring program are intended to apply to the limited access fishery, which is A, B and C, but the council may consider just A and B. And then the measures to address river herring bycatch, there are options to include A, B and C or A, B, C and D, which obviously makes a huge difference in terms of

the scope of the management action and the potential impacts.

So that is just to give you some perspective and something to think about as you're thinking about these measures. The council ultimately will have to decide which permit categories all of these measures are going to apply to, and that is something that we'll be seeking public comment about. As I mentioned with river herring, Alternative 1 is no action, and I'm going to go ahead and skip that one.

Alternative 2 is our first sort of major management alternative to consider for river herring bycatch, and this is the monitoring and avoidance alternative. The areas that were selected under this alternative – essentially what this alternative does is it sets up monitoring and avoidance areas. These are bimonthly areas, January/February, and then the next set of areas would be March/April and then May/June and so and so forth.

The areas were selected based on observer data from 2005-2009. We ran the observer data through a statistical analysis and we found the break points in the data and used those as thresholds to identify areas. The monitoring and avoidance areas you'll see are larger in scope than the protection areas in the next alternative, so the threshold for selecting the monitoring and avoidance areas is lower, less conservative.

These areas are based on one observed tow in the area quarter degree square greater than 40 pounds from 2005-2009. And then, as I mentioned, we have identified these areas, which I'll go through in a minute, in this alternative, and then the council is considering several options as to what to do in these areas.

These are sort of the areas where based on the observer data we would potentially expect to see river herring encounters in the herring fishery; and so under this alternative we would be monitoring the catch in these areas more closely and potentially encouraging bycatch avoidance. The first option is to implement a hundred percent observer coverage in these areas, and this would be whatever permit categories the council decides, and this is where you really have to think about A, B, C and then 2,200 D vessels that may be fishing in these areas.

The second option is to implement the Closed Area 1 sampling provisions whenever there is an observer on board in these areas. The Closed Area 1 sampling provisions require that all fish at least be pumped

across the deck for the observer to sample. Slipping or discarding fish before they come on board is prohibited. There is also a requirement to fill out a released catch affidavit if a slippage event occurs under certain exceptions.

The third option is a trigger-based approach, and I'll go over this in a few minutes. Under this option river herring catch in all areas would be monitored until a trigger is hit. When the trigger is hit in a particular area, that would then trigger these monitoring and avoidance areas, and it would either trigger Option 1 or Option 2 here. It's very similar to Options 1 and 2; it just doesn't implement the actual measures until a catch trigger is reached.

And then the fourth options is within these areas to adopt sort of a two-phased bycatch monitor and avoidance approach that is based on the SMAST projects that you just heard Dave talk about. Phase 1 would occur in Amendment 5 where we identify the areas and potentially encourage or increase monitoring in those areas and work with the industry through SMAST to get more information about bycatch avoidance.

And then Phase 2 would be after the SMAST Project is completed, the council would review the project results and determine whether or not any of the outcomes of the project would need to be adopted formally in the Herring Plan as sort of a bycatch avoidance type strategy. Very briefly, I'll flip through these areas just to give you some perspective.

These maps are all in the document. As I mentioned under the monitoring and avoidance alternative, the areas are larger because they're just monitoring areas. They're not closed areas or anything like that. The threshold was 40 pounds. The shaded blocks here are the January and February proposed monitoring avoidance areas; and these are March and April.

All of these shaded quarter degree squares would become your monitoring and avoidance areas where a hundred percent observer coverage would be required or Closed Area 1 sampling provisions or something. This is May and June, July and August in the northern Gulf of Maine, and then September/October and November/December. The blocks change every two months. Those would be for monitoring and avoidance under Alternative 2.

And then next is Alternative 3, which the goal would be river herring protection. This alternative proposes to protect river herring in the areas where encounters with the herring fishery are most likely, so we used a

higher threshold of observed bycatch to identify these areas. The areas are based on one observed tow of river herring catch greater than 1,233 pounds. I know these are really weird numbers but that's just the way the statistical analysis broke it out.

The first option is to close the areas; just make them closed areas to herring fishing, either A and B or A, B and C or A, B, C and D; to be determined. And then the second option is use a trigger-based approach where the areas would not become closed areas until a catch trigger is hit during the fishing year. Again, these are smaller areas because of the more conservative bycatch threshold.

These would be the protection areas under Alternative 3 in January and February; March and April. There are no protection areas proposed for May/June or July and August, so the next group would be this one block in September/October; and then these blocks in November/December.

Now, regarding the trigger-based approach, this is complicated. This is an option under Alternatives 2 and 3, either the monitoring alternative or the protection alternative. What we've done here is we've identified three different areas. They're shaded differently on the map, and those are your trigger-monitoring areas. I was going to put the table in here. There is a table in the document that gives the various options for the catch triggers that are being considered.

The idea here is there would be three catch triggers in these three different shaded areas; and if any one of those triggers is hit during the fishing year in that area, whatever monitoring or avoidance or protection measures are selected would then apply from that point forward in that area for the rest of the year.

So it's basically delaying the implementation or the effectiveness of any of the monitoring, avoidance or protection measures until a catch trigger is hit in the particular area. There was a question earlier about river herring catch caps. The council has included a placeholder in the document for establishing a river herring catch cap in the Atlantic herring fishery after ASMFC completes a river herring stock assessment.

The council did vote to – I think the council made this clarification at the September meeting that the catch cap could be implemented in the future through either a framework adjustment or through the specifications process. The mechanism is in the document. It is consistent with what the Mid-Atlantic Council is proposing for setting catch caps

through the mackerel specifications process in the future.

Because we're considering this catch trigger-based approach, we actually have already laid the technical groundwork for catch caps because the triggers are based on work that the PDT did to try to develop a catch cap for the fishery. By going through the process of establishing the triggers and mechanisms to monitor the triggers, we've kind of already laid the groundwork in this amendment for setting caps in the future, so we will be able to do that in the future without having to do a full amendment.

We can do it either through the specifications process every three years or through a framework adjustment at any time. Okay, just because it's not confusing enough to read, I went ahead and put together a flow chart that kind of gives you a graphical illustration of what the river herring management alternatives look like.

Hopefully, you can read it on your handout. I'm sorry the slides didn't print as well as I had hoped. This just sort of gives you an idea of what we're looking at here in terms of monitoring and avoidance or protection and the various decisions that have to be made. There are also exemptions being considered for the Northern Shrimp Fishery in the Gulf of Maine as well as for vessels fishing with mesh greater than 5-1/2 inches. All of that information is in the document as well.

As I mentioned, that's that green lower left quadrant, but that's the section of the document that really focuses in on just specifically addressing river herring bycatch. If the council chooses Alternative 1 on that, no action, that doesn't mean that river herring bycatch does not get addressed in Amendment 5. That just means that we're not going to take one of those very specific spatial-based approaches for addressing it.

We have a slew of management measures in this document as part of the catch monitoring program that will address river herring bycatch either directly or indirectly. The entire catch monitoring program is designed and intended to enhance sampling, improve monitoring and improve information; all of these things which we need to do for river herring. I'm not going to go into all of them right now, but you can come back after lunch for the herring presentation if you want to hear a little bit more about some of the catch monitoring elements.

There are a bunch of quota monitoring and reporting provisions in the document, changes to reporting

requirements, trip notification requirements, things like that to improve reporting and monitoring in the fishery. Then we also have options proposed for reporting requirements for dealers; alternatives for increased observer coverage, an alternative for a maximized retention experimental fishery, and measures to maximize sampling and address net slippage.

Reporting requirements for dealers, Section 3.1.6, there is an option being considered to require dealers to accurately weigh all fish. The option is pretty straightforward, I guess, in that it just says that dealers are going to accurately weigh all fish. It's a little bit unclear how that is going to happen because the operations, dealers, processors, the herring fishery, as small as it is, is incredibly diverse in terms of the way the fish are handled.

The council is considering some suboptions to try to clarify that, and these things like if the dealers don't sort their catch by species they would be required to document for NMFS either annually or for each landing event how they're going to estimate the relative species composition of a mixed catch. Also, there is a suboption being considered to require dealers to get a vessel representative confirmation of a SAFIS transaction at the first point of sale.

We're just trying to resolve some data entry issues and try to – we have a lot of different data bases for herring landings; you know, dealer, VTR, now we have VMS, and we're trying to reconcile some of the differences in these data bases. To the extent that we can get the dealers to start documenting more clearly how they are estimating their species composition in a mixed catch, we may be able to get some more information about how much river herring is moving through some of the dealers.

Now as I mentioned, one of the big elements of this amendment and the catch monitoring program are the alternatives to allocate observer coverage on the limited access herring vessels. These are the A, B and C vessels, the hundred vessels that catch 99.5 percent of the fish. There are several alternatives under consideration.

I won't go into them in great detail right now, but they each include four elements; one being what the priorities are for coverage; two being what the process is for reviewing and allocating and prioritizing coverage; three, options for funding coverage; and, four, provisions for utilizing service providers and authorizing waivers. This is in the event of some additional coverage outside of what

the Science Center and the Observer Program currently provides.

In the event that is needed, we need to have a process for other service providers and a process in place in for what happens if a boat tries to get an observer and can't get an observer for some reason. This table that you can't read is a summary of the alternatives to allocate observer coverage on the limited access herring vessels, and it goes through each of those four elements that I just described.

The first alternative is no action. The second alternative is to require a hundred percent observer coverage on A, B and C vessels, so those are sort of your two extremes. The third alternative is to use the formerly current SBRM process and to require that whatever the SBRM coverage levels are for the herring fishery, require that those at least be minimum levels. I know that sort of sounds like the status quo, but right now the SBRM, the way the process works the council can reprioritize and can move days around in order to deal with funding shortages and things like that. This alternative would not allow for days to be moved out of the herring fishery. It would require that at least what comes out of the SBRM is a minimum of coverage.

And then Alternative 4 is to use sort of a different set or priorities for allocating observer days on these vessels. One of these priorities under Alternative 4 would be river herring. Right now because river herring is not federally managed, it is not part of the SBRM process. Obviously, river herring bycatch is accounted for through the SBRM because observers observe everything, but it is not a driving factor in terms of allocating days.

Alternative 4 would specify that a 20 percent CV for river herring bycatch would be one of the driving factors for allocating days on limited access herring vessels. Chances are that at least Alternative 2, for sure, Alternative 4 and possibly Alternative 3 would all require funding above and beyond current federal funding, so the option exists under each of these alternatives for an industry-funded observer program.

The details of an industry-funded observer program are going to have to be fleshed as the program is developed and implemented if the council chooses to go that way. I tried to fit as many words on this slide as I possible could. Measures to maximize sampling and address net slippage; this is another big issue that is going to affect river herring.

The council has included in the document several options to enhance sampling by observers and several

options to address net slippage. I think it was referred to in the earlier discussion as dumping. Amendment 5 includes a very specific definition of what slippage is and this slide gives you that definition.

Slippage is unobserved catch that is discarded prior to being observed, sorted, sampled or brought on board the fishing vessel. It can include the release of fish from a cod end or seine prior to completion of pumping or the release of an entire catch or bag while the catch is still in the water. Slippage does not include operational discards which are the fish that remain in the net after pumping operations are finished, after a successful pump and there is a little bit of fish still in the net.

The observers have done a pretty job of documenting operational discards, and there are still some measures in the amendment that continue to improve their ability to do that. In general, though, operational discards represent a very small portion of discarded fish, so they are not considered slipped catch.

Any discards that occur after the catch is brought on board is not considered slipped catch. Those are obviously discards and bycatch but they're not slipped. In terms of measures to maximize sampling, I'm not going to go through these in detail, you can read them in the document.

We have requirements to require a safe sampling station, requirements to provide observers with reasonable assistance, requirements to notify observers when pumping is starting and finishing, communication between pair trawl vessels and requirements that vessel operators provide observers with visual access to the cod end after pumping is completed. Measures to address net slippage; we are considering an option to require a release catch affidavit for slippage events similar to the Closed Area 1 requirements on any trip when there is an observer on board.

We are also considering an option to implement the Closed Area 1 sampling provisions across the fishery any time there is an observer on board. I should mention those Closed Area 1 sampling provisions that are being considered here across the entire fishery are considered in the river herring monitoring and avoidance areas. That's one of the options for river herring monitoring and avoidance.

Again, if the council were to adopt this across the entire fishery, there really isn't a need to adopt it in

the river herring monitoring and avoidance areas; it would already happen. So as I mentioned if the council does take no action on those specific measures to address river herring bycatch, there are many other measures in the plan that would potentially address river herring bycatch.

We're also considering an option to apply a catch deduction and possibly trip termination for any slippage events that are observed. There are several sorts of suboptions in the document related to that. And then as I mentioned there is an alternative in the document that would allow for a maximized retention experimental fishery. The details of that are not in the document.

All that it would do, it's a mechanism that would allow NMFS actually to run an experimental fishery to test maximized retention in the herring fishery after the amendment is implemented, so NMFS would actually have to develop the details of the experiment. I'm not going to go through this in detail. These are some of summary tables that we've put together to try to let everybody know where options are that are being considered and what goals and objectives they meet.

I'll get into this later this afternoon. These are the actions for improving sampling. Here on this slide are the options for addressing that slippage that I just discussed. These are all in the document, in these various section numbers if you want to take look at them. And then here are the two alternatives for the maximize retention experimental fishery.

Okay, this I'm sure you can't read, but hopefully you can on the paper and these are also in the document although now that we've revised the document and submitted the formal draft these tables have been updated. I would encourage you, once we have the formal draft available, to take a look at these summary tables. These get into the impacts.

I didn't want to spend too much time on impacts today because I figured everybody kind of wanted to hear a little bit more about the actual measures. In terms of the impacts, we looked at it across – they're called valued ecosystem components. It's a NEPA requirement, VEC, so we selected several VECs to analyze the impacts in the amendment; one being the Atlantic herring resource.

The second one is non-target species in other fisheries. River herring is identified specifically in that VEC. The third VEC is essential fish habitat; fourth is protected resources; and the fifth is fishery-

related businesses and communities. Without getting into any detail, I'm happy to go back through these if people have questions. These three summary tables here just sort of give you a very general summary of what the impacts analysis is showing you.

In terms of the impacts of the measures to address river herring bycatch, I did just want to point this out. A lot of this is in the September document. For the actual formal Draft EIS that hopefully will be available very soon, I've actually taken this whole analysis and moved it into an appendix and condensed everything in the Draft EIS into a much hopefully easier to read summary of the impacts.

But, if you go into the impact analysis, it has a lot of elements in it that I think that this board would be very interested in. This is all now going to be an appendix in the amendment, but the analysis takes a look at the coincidence of river herring and shad in the fishery and concludes essentially that any measures that are implemented in this fishery to protect river herring are going to have very similar impacts on shad because of the overlap of the two species and the overlap of interactions in the fishery.

There is also a very detailed river herring catch comparison in the document, which I think it's like a four-page table, that provides every estimate of river herring catch and bycatch that has ever been generated that we were able to find from any source anywhere; and it also provides the CVs and the estimates and precision associated with those estimates.

Migration patterns and looking at the monitoring and avoidance areas, that is in there; assessment of the protection areas and then, of course, the impact analysis of spatial closures and triggers. The river herring analysis is extremely detailed, very technical and very complicated. Hopefully, the formal Draft EIS will be a little clearer to follow but all of those elements are in there.

Just to give you on the catch comparison table, I did put some tables in here to give you an idea of what kind of analysis you might be able to find in the document. As part of the catch comparison, one of the things that we did do, the Herring PDT took the 2010 catch data and went ahead and derived a river herring catch estimate for the Atlantic Herring Fishery.

We had really good observer data in 2010. Almost 30 percent of the fishery was observed, so we generated a catch estimate for river herring removals

in the directed herring fleet. The CV associated with that catch estimate I think is about 0.35, 0.36, so it's not terrible given some of the really large CVs we were seeing in the past. It's one of our more precise estimates.

This table just kind of puts it into perspective. The directed herring fleet we're estimating in 2010 caught about 166,000 pounds of river herring based on about a 30 percent observer coverage in the fishery. All fleets estimated from the SBRM were estimated to catch about 531,000 pounds of river herring, and then, of course, as you know the Maine directed fishery landed 1.3 million pounds in 2010.

That just tries to put some of this into perspective, because we've heard a lot about the impact of river herring bycatch by the Atlantic Herring Fishery. The other thing that you'll find in the document regarding the areas that have been chosen, the monitoring and avoidance areas and the protection areas, is a qualitative assessment, and this is just an example.

If you go into the document and you see the quarter degree square on the maps, each of them have a letter in the, A, B, C, D, all the way through the alphabet. In these tables you'll see letters across the top and that gives you the block in the map that we're talking about. This right here is for the monitoring and avoidance areas in January and February. It goes through each of the blocks that's proposed for monitoring and avoidance and answers relatively simple questions; are there areas adjacent to those blocks that were fishery based, meaning are there areas adjacent that had interactions with the fishery and river herring; are there adjacent areas that were picked up in the survey as being river herring areas; and do these areas overlap.

The question is are we picking the right areas; are we picking the areas that really do reflect where the most encounters with the fleet are going to be; or, if we close these areas and everybody goes fishing outside of the areas, are we going to make the problem worse because everybody is going to catch river herring outside of the areas.

The answer is we really don't know; so what we have tried to do is provide a qualitative assessment of the areas and what might be in the surrounding or adjacent blocks. You'll also see a lot of maps like this in the document. What this is, is it gives you – in terms of looking at the potential impacts on the fishery, this gives you a bimonthly illustration of where the fishing effort is. This is just A, B and C. I

believe we have some of the D vessels in the document as well.

The hatched blocks are the ones that are proposed for monitoring and avoidance, and then the colored blocks are where the fleet operates, so it gives you a sense of what the overlap is between the fleet activity and the areas that are proposed. The other thing you'll find in the document is for each of the areas and each of the options by gear type and permit category, we looked at A, B and C and we did look at D separately here for each of the blocks how much time is spent fishing in the areas, how much time is spent fishing outside the areas and how much catch comes from inside and outside those areas.

Okay, here are your triggers. This table in the upper left gives you the nine options under consideration for the river herring catch triggers. What we did in the document, there is a series of histograms like the one here on the bottom right that show you what the probability of reaching the triggers is in each of the various areas.

You'll also see in the document again sort of a qualitative sort of wrap-up of the potential impacts, positive and negative, going through by option and things like that; just sort of a summary of the impacts. I'm not going to read that now. And then again more summary tables summarizing across each of the five VECs what the potential impacts of all of these measures are. Hopefully, you can read those. I already went through the timeline. That's it and I'm happy to answer any questions.

As I mentioned, we're just literally sitting here waiting to find out when the public comment period is going to start. Most of the public hearings are scheduled for late March. I'm going to do a public hearing at the Maine Fishermen's Forum on March 2nd, and then I believe that the next one isn't until I think the 16th of March. I pushed everything towards the end of March hoping that we'll be okay timing-wise waiting for the comment period to start. As long as the comment period ends before the April council meeting, we'll be making final decisions hopefully at the April council meeting so that we can implement in January of 2013.

CHAIRMAN DUVAL: Thank you, Lori, for that very thorough presentation and for coming before the board once again. We very much appreciate that. I see Terry had a comment or question.

MR. STOCKWELL: Both, Madam Chair, and thank you, Lori, for compressing multiple years of work in

550 pages of DEIS into a relatively concise report. I notice on the agenda there is select preferred alternatives on the draft. I have a lot of angst about that. It's still a draft amendment. We haven't received public comments.

I would prefer personally and it would be the will of the board that we defer comments with the caveat that if the public comment closes prior to the commission being able to provide comments, that you would form a working group with representatives of the board and draft some comments, circulate it to the board and then provide them to the council in a timely manner.

CHAIRMAN DUVAL: Thanks for that, Terry. Other thoughts on that particular option with regard to providing input on the board's thoughts on the management options that are contained in Amendment 5? I guess maybe just a quick question for Lori; how confident are you of the timeline? I know you're waiting the formal Draft EIS to come out so that you can go through with public hearings, and right now I understand that the comment period would close before the board meets again in May; correct?

MS. STEELE: I have no way of – if it were up to me, I'd be really confident but the next commission meeting is April 30th. Unless everything goes badly and the council can't make its final decisions at the April council meeting, there won't be another meeting. We have a little bit of wiggle room.

The 45-day comment period for us has to end like April 24th or whatever; so worse case scenario we wouldn't go into a public comment period until some time in March. But, as long as it ends before the first day of our council meeting, we can make decisions. At this point I'm pretty confident that's going to happen, but I've also learned never to be surprised.

CHAIRMAN DUVAL: Thanks for that. I think Vince has a couple of comments for us.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: This is an important issue for our commission and for this board. It seems to me that Terry's idea of getting a group together and start working on a response right now wouldn't hurt this board at all. If the Draft EIS is delayed in being released and they don't make the deadline, the worse happens is that the work of the committee could come before the board in May for discussion and final approval. If the thing comes out earlier than that, then the board would be in a position to respond in time to have the input being

considered. I don't see how you could lose by agreeing today to go forward with Terry's idea.

CHAIRMAN DUVAL: Thanks for that, Vince, and I had had similar thoughts prior to the meeting that it would certainly be more efficient to have a subgroup of board members work on comments. I think it's easier than trying to hash out specific recommendations here particularly since the Draft EIS has not been released yet.

Do other board members have any other comments to the contrary or thoughts or is there a general consensus around the board that would be an acceptable approach? I'm seeing heads nodding; so with that I guess would – I see going to ask for volunteers to serve on this subcommittee, but I see Lori has her hand up.

MS. STEELE: I was just going to mention a couple of things. First of all, I will have a public hearing document available before the end of February because I'm going to do the hearing at the Maine Fishermen's Forum. If that's not a real official public hearing, it's still going to be a public hearing. It will be an unofficial public hearing. I'll have a public hearing document available.

The other thing I was going to suggest is for the commission in general, you know, I'm going to give a presentation this afternoon to the Herring Section on some of the other elements of the amendment. All of these things are so interrelated, I would hope that the commission would want to sort of maybe work on submitting one collective set of comments rather than river herring comments and herring catch monitoring comments.

CHAIRMAN DUVAL: Thanks, Lori; that's also a good suggestion and I think certainly any comments that would be submitted by this board, we would not want those to be in conflict with any comments submitted by the Atlantic Herring Section. Vince.

MR. ROBERT E. BEAL: Hopefully, Vince and I are about to say the same thing. If the management board and the section disagree or have conflicting comments, the policy board is the group that would sort that out and make sense of it. Obviously, competing or conflicting comments going to the National Marine Fisheries Service from this group is not very effective so you have to go through the policy board, formulate one position for the commission, and bring that forward for the council and the National Marine Fisheries Service.

CHAIRMAN DUVAL: So with that, do I have some volunteers? I see Terry; Doug; Pam, our AP Chair. I will also volunteer to be on that; Mike Armstrong. Anybody else? Okay, if that's all we can get right now, we'll start there but we might need to strong arm a couple of other folks into participating later, so don't be surprised if you get a phone call.

There was one other item that is relevant to the information that is contained in Amendment 5 that I did want to bring up, and that was a letter that was submitted by the National Coalition for Marine Conservation with regard to updated river herring regulations. The states have been going through the Amendment 2 implementation process for river herring, and I believe several states have probably had to update their regulations recently.

I'm not sure if – I know the September draft of the amendment may not have had the most up-to-date regulations. I believe that some of the states are still working on that. One of the points in the letter that was made is how the states handle those state and federal waters ocean bycatch, and I think it's particularly important to perhaps try to include a column in that chart on how do states handle ocean bycatch.

I know, for example, in North Carolina our rule is a no possession rule. You can't have it. I took a quick glance at that table. As an example, Massachusetts I know has a moratorium on river herring, but I believe allows a 5 percent tolerance by weight for federally permitted vessels. Well, that information isn't included in that chart.

I'm just wondering, Lori, is there the opportunity for the board members to update and make sure that the regulations that we have for the states are the most up to date as they can possibly be given some of the changes we have gone through with Amendment 2 implementation and would it be possible to include some kind of comment column that would account for what do states do with or how do they handle ocean bycatch of river herring.

MS. STEELE: Yes, absolutely, if any of that information could be provided as part of the comments on the amendment, we can certainly incorporate it into the final draft. The other thing that we should do – and I can work Kate and Chris on this – is we did in the amendment include a summary state by state of the regulations – I think it was the regulations for river herring so we certainly should update that as well.

MR. GROUT: Well, my thought was that we do provide plan reviews every year that include the state regulations that pertain to river herring and also the sea herring, and that information could easily be drawn out of the most recent plan reviews for both of those teams. Either we could do that as part of the subcommittee providing comments or the staff could just ship those plan reviews off to Lori.

CHAIRMAN DUVAL: To that point, Kate.

MS. TAYLOR: Yes, we do include the fishing regulations in our FMP Review; however, it would be for the prior fishing year, so it's not including the most up-to-date 2012 information for this year's FMP Review.

MR. STOCKWELL: My first comment was similar to Doug's, and my second comment is that the state of Maine is currently in a rule-making process and it would be premature for me to include anything other than proposed rules because there is no way in being assured that is what will actually be the outcome.

DR. GEIGER: Madam Chairman, to a slightly different point. I'm still a little confused about the process for this board providing comments to some subset and then a process after that. I heard Bob Beal say that appropriately the policy board should send comments forward representing ASMFC. Could I just get a clarification of what is the proposed process by which the ASMFC will provide comments back on this issue?

CHAIRMAN DUVAL: Thanks, Jaime, that's a great question and I think Bob is going to chime in here.

MR. BEAL: This board just formed the working group. They're going to come up with draft comments on Amendment 5 once they get the working draft from Lori or the public comment draft. Then they will circulate those draft comments to this entire board for review and hopefully sign off.

That may be the end of it, but I think the Herring Section is going to meet later this afternoon and they're going to decide on what process they would like to use for providing comments. If at the end of both of those processes we end up with conflicting comments or comments that don't mesh well together and won't provide some valuable information to the National Marine Fisheries Service, we'll have to formulate something so the policy board sorts out those differences between the section and the board. We can do that offline through correspondence with the policy board. Depending on the timeline, we can

do it at the May meeting if the timeline that Lori presented does slip.

DR. GEIGER: Is it appropriate for both the advisors to weigh in on this as part of this process as well as the technical committee or is this should be just to the board itself?

MR. BEAL: Usually comments are signed off finally by the board. There can be input from the advisory panel, and it may be best if the advisors give input to the working group and then the working group distills that and provides that as part of their comment.

DR. GEIGER: I just want to make sure that the advisors do have a mechanism to provide input as well as the technical committee and I think that's a good process. Thank you very much.

CHAIRMAN DUVAL: So does that sound okay to everyone; people are clear on the process that we're going to follow to provide some comment on this amendment? Back to the other issue of having a state's most updated regulations, the point that was made is just that some states may have actually implemented new rules since the prior FMP Review and really just to try to incorporate those updated versions of rules and also how states actually treat ocean-related bycatch of river herring into the chart that Lori has already in Amendment 5.

For states like Maine that are in the middle of rulemaking, obviously you can't do anything like that and we certainly wouldn't ask that. Are there any other questions with regard to Amendment 5 right now? Okay, if there are no more questions, Kate is going to give us a quick update on where the Mid-Atlantic Council's Amendment 14 process stands.

UPDATE ON MAFMC DRAFT AMENDMENT 14

MS. TAYLOR: In your briefing material, it included a revised timeline for the Mid-Atlantic Council's Amendment 14 to the Squid, Mackerel, Butterfish Fishery. As you can see on the revised timeline, the public comment period is expected to close in early May. I have talked to council staff and confirmed that would be after our May board meeting, so you can expect that you will have a draft of the Mid-Atlantic Council's Draft Amendment 14 for review at the board meeting at that time.

CHAIRMAN DUVAL: Any questions for Kate on that? Okay, seeing none, we do have a couple more items on our agenda. The first one is to review and

populate the Committee on Economics and Social Sciences membership, and I think Kate has a name for us.

POPULATE THE COMMITTEE ON ECONOMICS AND SOCIAL SCIENCES MEMBERSHIP

MS. TAYLOR: The Committee on Economics and Social Sciences recommends the board approve Dr. Winnie Ryan as a social scientist to the Shad and River Herring Technical Committee and plan development team.

CHAIRMAN DUVAL: I would entertain a motion. Pat.

MR. AUGUSTINE: **I move that the board accept the recommendation to put Dr. Winnie Ryan on the Economics and Social Sciences Committee.**

CHAIRMAN DUVAL: Second by Bill Adler. Is there any discussion on this motion? Any opposition to this motion? **Seeing none, that motion is approved.** I believe our final item of business today is **election of a vice-chair.** Mr. Travelstead.

ELECTION OF VICE-CHAIR

MR. JACK TRAVELSTEAD: **Madam Chair, I would like to nominate Terry Stockwell for vice-chair.**

CHAIRMAN DUVAL: Motion by Jack Travelstead; second by A.C. Carpenter to nominate Terry Stockwell as vice-chair of the Shad and River Herring Board. Comment by Pat Augustine.

MR. AUGUSTINE: I move that the board close nominations and cast one vote to approve Mr. Stockwell as the man.

ADJOURNMENT

CHAIRMAN DUVAL: So done. Congratulations, Terry. Is there any other business to come before the board before we adjourn? Seeing none, we stand adjourned.

(Whereupon, the meeting was adjourned at 1:30 o'clock p.m., February 7, 2012.)