PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION SHAD AND RIVER HERRING MANAGEMENT BOARD

The Westin Alexandria Alexandria, Virginia May 3, 2016

Approved October 2016

TABLE OF CONTENTS

Call to Order, Chairman William Goldsborough	1
Approval of Agenda	
Approval of Proceedings, May 2015	
Public Comment	1
Timetable for American Shad and River Herring Stock Assessments	2
Report from Data Standardization Collection Workshop	4
Update on Activities of the River Herring Technical Expert Work Group	5
Consider Approval of 2015 Shad And River Herring FMP Review and State Compliance	5
Elect Vice-Chair	7
Adjournment	8

INDEX OF MOTIONS

- 1. **Approval of Agenda** by Consent (Page 1).
- 2. Approval of Proceedings of May, 2015 by Consent (Page 1).
- 3. Move to approve the 2015 FMP Review of the 2014 Fishing Year, and approve de minimis requests for river herring, New Hampshire, Massachusetts, and Florida and for shad, Maine, New Hampshire, Massachusetts, and Florida (Page 7). Motion by Bill Adler; second by Steve Train. Motion passes unanimously (Page 8).
- 4. **Move to nominate John Clark as Vice Chair to the Shad and River Herring Management Board** (Page 8). Motion by Michael Armstrong; second by Dave Simpson. Motion passes unanimously (Page 8).
- 5. **Move to adjourn** by Consent (Page 8).

ATTENDANCE

Board Members

Terry Stockwell, ME, proxy for P. Keliher (AA)

Steve Train, ME, GA

Cheri Patterson, NH, proxy for D. Grout (AA)

Ritchie White, NH (GA)

Mike Armstrong, MA, proxy for D. Pierce (AA)

William Adler, MA (GA) Rep. Sarah Peake, MA (LA)

Sarah Ferrara, MA, Legislative proxy Bob Ballou, RI, proxy for J. Coit (AA)

Eric Reid, RI, proxy for Sen. Sosnowski (LA)

Dave Simpson, CT (AA)

Mike Falk, proxy for Sen. Boyle (LA)

Jim Gilmore, NY (AA)

Emerson Hasbrouck, NY (GA)

Russ Allen, NJ, proxy for D. Chanda (AA)

Tom Fote, NJ (GA)

Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)

Andy Shiels, PA, proxy for J. Arway (AA)

Loren Lustig, PA (GA)

David Saveikis, DE (AA)

John Clark, DE, Administrative proxy Craig Pugh, DE, proxy for Rep. Carson (LA)

Roy Miller, DE (GA)

Mike Luisi, MD, proxy for D. Blazer (AA)

Bill Goldsborough, MD (GA)

Kyle Schick, VA, proxy for Sen. Stuart (LA) Rob O'Reilly, VA, proxy for J. Bull (AA)

Cathy Davenport, VA (GA)

Michelle Duval, NC, proxy for B. Davis (AA) Mel Bell, SC, proxy for M. Rhodes (GA)

Robert Boyles, Jr., SC (AA)

Pat Geer, GA, proxy for Rep. Burns (LA)

Spud Woodward, GA (AA)

Jim Estes, FL, proxy for J. McCawley (AA)

Martin Gary, PRFC Bryan King, DC Mike Millard, USFWS Derek Orner, NOAA

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

Ex-Officio Members

Staff

Bob Beal Toni Kerns Max Appelman Kirby Rootes-Murdy Jeff Kipp

Guests

John Bullard, NOAA Charles Lynch, NOAA Jon Hare, NOAA Wilson Laney, USFWS Dan McKiernan, MA DMF Stew Michels, DE DFW Joe Cimino, VMRC

Jeff Deem, VMRC
Shaun Gehan, Gehan Law, DC
Susanna Brian, Baltimore, MD
Jeffrey Pierce, Alewife Harvesters, ME
Abden Simmons, Maine Elver Fishermen's Assn.

Jeff Kaelin, Lund's Fisheries, NJ Arnold Leo, E. Hampton, NY The Shad and River Herring Management Board of the Atlantic States Marine Fisheries Commission convened in the Edison Ballroom of the Westin Hotel, Alexandria, Virginia, May 3, 2016, and was called to order at 11:58 o'clock a.m. by Chairman Bill Goldsborough.

CALL TO ORDER

CHAIRMAN BILL GOLDSBOROUGH: Good morning everyone, by my watch it is still two minutes before noon, so it is still morning. Welcome to the Shad and River Herring Board. My name is Bill Goldsborough. I have the honor of being the new Chair of the Board. I may have forgotten that sequence; since we haven't had a meeting in a year, but Terry Stockwell is the previous Chairman. I want to thank Terry for his service. He didn't let any species get listed on his watch.

APPROVAL OF AGENDA

CHAIRMAN GOLDSBOROUGH: Let's all take a look at the agenda. Does anybody have any additions or changes they would like to recommend? Seeing none; we'll consider the agenda approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN GOLDSBOROUGH: The proceedings from the May, 2015 meeting, or in the meeting information, does anybody have any changes to offer for them? Seeing none; the proceedings from the May 2015 meeting stand approved.

PUBLIC COMMENT

CHAIRMAN GOLDSBOROUGH: We'll take public comment at this time for any issues that are not on the agenda. I see a hand in the back. Des, there is a public microphone right back there.

MR. DESMOND KAHN: For those of you who don't know me my name is Desmond Kahn; I worked for Delaware for a couple of decades, and I was on many of the technical committees for the Commission during that period. I sent you all an e-mail, or as many of you as I had the

e-mail addresses for an e-mail yesterday; on the subject of striped bass predation on shad and herring.

In that e-mail, I attached a paper that I presented last summer at the American Fishery Society annual meeting in Portland, Oregon. I was invited to speak at a symposium on conservation and utilization for sustaining our fisheries. The title of my talk was management of a top inshore predator; deferring recreational and commercial goals, and the impacts on other fisheries.

I am sure many of you are aware of a couple of the points I'm briefly going to try to make today. We're trying to manage shad and herring, yet at the same time we have built up one of their primary predators to very high abundance levels. I think we're kind of working across purposes there. My background is in ecology, and in ecology we've learned that when a primary predator builds up the high abundances, its primary prey usually decline.

I am sure many of you know that the primary prey of striped bass has been found to be members of the herring family, including shad and river herring. There is conclusive scientific evidence now that in several river systems, particularly the Connecticut River and the Delaware River, striped bass predation has driven down the abundance of American shad and river herring. I presented some graphs of that in my paper. This was documented in the Connecticut River by Dr. Victor Creeco, who is really the world's authority on American shad. He's published more peer reviewed scientific papers on this topic than anyone on the topic of American shad. He documented that in the 2007 assessment, but with Tom Savoy, who also works for Connecticut.

Dr. Creeco has since retired, but they tried to bring this information to the board, but their report was removed from the body of the report, and put in as an appendix. A separate report for the Connecticut River was written, and their names were put on the report, and it was published as part of the assessment; although they never saw this report.

If you go back to that assessment and you look at the appendix, you will find their report detailing the way that striped bass predation really controlled the abundance of shad. I think we have to start taking a look at some of the tradeoffs in our management among species, and really take an ecosystem-based approach. I would like to encourage you to start thinking about that. Thank you very much.

CHAIRMAN GOLDSBOROUGH: Thank you Des. From that e-mail it looked to me like it didn't go to the most current list of Board members, so maybe staff can make sure that all of you that may not have gotten it do get it. I found the presentation to be very interesting; a good reminder about the ecosystem-based management needing to be a priority. Okay let's move on to Agenda Item Number 4. Jeff, I'll give you the floor.

TIMETABLE FOR AMERICAN SHAD AND RIVER HERRING STOCK ASSESSMENTS

MR. JEFF KIPP: I'll just be giving a quick update on the upcoming American shad and river herring assessments, and a slight change to the assessment schedules for those species. Just a little background, the most recent stock assessments for American shad, there was a benchmark stock assessment in 2007.

There was a benchmark stock assessment for the river herring species in 2012. What we're proposing is a stock assessment update for river herring in 2017. That recommendation was made in the 2012 benchmark assessment, with an update in five years, which would be 2017, and a benchmark assessment ten years from that assessment, which would be 2022.

We did have a call with the Technical Committees and discussed this recommendation, and felt that this was still an

appropriate recommendation. Technical Committee members did note that there are some beneficial monitoring efforts that have come, due to Amendment II, that will hopefully be useful in a benchmark assessment; but due to the short time series of those monitoring efforts, an update at this time is still appropriate.

There is also the need to develop robust stock specific ocean bycatch estimates; that preclude a lot of the assessment approaches that are done in other assessments and for other species. But there are some developments with some genetic studies, looking at the ocean bycatch that hopefully will be useful in a benchmark assessment down the road.

We did propose to move this assessment update from 2018, where it was originally on our stock assessment schedule up to 2017; and that is due to NOAA Fisheries revisiting the Endangered Species Act Listing Determination made in 2013, which they said they would be revisiting five years from that date. They are hoping to have the information from this assessment update for that revisiting of that listing determination. For the America shad stock assessment, we're proposing an update of that assessment to be completed in 2018. But we did want to note, we want to keep flexibility to potentially change that to a benchmark assessment, and that determination would be made at a data workshop, when we have a better chance to look at the data that have come online since the last benchmark assessment for American shad.

Similar to river herring, there were notes of the beneficial monitoring efforts due to Amendment III for that species. However, again it was noted that there would be a particularly short time series for most of those new monitoring efforts, and again for American shad as well there is the need to develop robust, stock specific, ocean bycatch estimates for that species as well; to move to some more complex assessment approaches.

We've proposed to move this assessment update from 2017 to 2018, to accommodate the river herring assessment; and those changes to the stock assessment schedule will be presented tomorrow to the policy board. The timetables for these assessments moving forward, we plan to have a webinar with the Technical Committees and Stock Assessment Subcommittees in late May, and I did want to note here that the Stock Assessment Subcommittees for shad and river herring will need to be repopulated.

Kirby will be reaching out to the commissioners to repopulate those Stock Assessment Subcommittees. We plan to have a joint data workshop for shad and for river herring in the fall of 2016. Due to the overlap in some of the folks that will be working on those assessments, and also some of the similarities in the data that we'll be going over, we felt that this was a more efficient use of a data workshop to combine those.

Then following that data workshop, efforts will focus on completing the river herring assessment update in 2017. Once that update is completed, we'll then focus our efforts on completing the American shad assessment update by 2018. That is my update, and if there are any questions on those upcoming assessments, I can take those now.

CHAIRMAN GOLDSBOROUGH: Any questions for Jeff on the stock assessment timetable? Yes, Rob.

MR. ROB O'REILLY: Not on the timetable, but more if I may, on the genetic study to look at the ocean intercept fishery. I'm curious as to what is thought about there for that type of study. There were some studies done in the past, both tagging and genetic; but it was mitochondrial DNA study in the nineties.

I think before the ASMFC went on the closeout of the American shad intercept fishery, there

was talk of maybe having sort of a synoptic study to look closely at the intercept fishery. But that never really materialized, so I'm wondering how involved this next study is, and will it utilize the results from the former studies; which those studies didn't really corroborate each other very well.

In fact the tagging study in the early nineties had sort of contradictory results, depending on which study it was. One study gave more of a northern intercept of northern stocks, Connecticut and other stocks north, and the second time around it was more of a southerly approach, as far as where the fish were being intercepted. The mitochondrial DNA study didn't really balance that out either. A couple of questions would be, are you going to tap into the old existing data and how involved is this genetic study going to be? What type of a genetic study is it going to be exactly? Is it a nuclear DNA study? What's anticipated?

MR. KIPP: The study was recently published in 2012 that I mentioned specifically. I don't know the details of it, but it did find disproportionate effects of ocean bycatch on some of the different genetic distinct stocks. I think that information will be synthesized with the studies you just mentioned, and some of that other information.

However, I think that information will come more into play when we move to benchmark assessments, when we have a better handle on the ocean bycatch; not only the magnitude of that bycatch, but also how to partition that across the different stocks we're assessing the population at. I think again that information will come more into play when we move to a benchmark assessment, and again we'll synthesize that genetic study with, hopefully any of the other existing information, being tagging study or genetic studies that have been done in the past.

MR. O'REILLY: Sort of a follow up. The absence of a shad fishery in the ocean, and the absence

of a directed fishery, and the absence of a directed fishery in the bay, for the most part for many, many years, this type of information could be very good for the natal areas to have this information.

CHAIRMAN GOLDSBOROUGH: Anything else on the assessment timetable? Emerson.

MR. EMERSON C. HASBROUCK: On the American shad assessment in 2018, is that going to be an update or a full benchmark assessment?

MR. KIPP: The plan right now is that that will be an update of the 2007 benchmark stock assessment, with the potential to move to a benchmark assessment, if the Technical Committee and Stock Assessment Subcommittee feel that that is warranted, once we sit down at the data workshop happening this fall; and feel that there are either new data that could be incorporated, or different assessment approaches that were not looked at in that 2007 assessment that could potentially be useful in a new benchmark assessment in 2018.

REPORT FROM DATA STANDARDIZATION COLLECTION WORKSHOP

CHAIRMAN GOLDSBOROUGH: Let's move on to Agenda Item 5.

MR. KIRBY ROOTES-MURDY: I am going to go through this item pretty quickly, and happy to take any questions as they may come up. In May of 2015, the TC and members of the TEWG recommended to the board that a workshop be conducted, looking at data collection and standardization of current monitoring programs across the coast.

The focus would be on those fishery independent survey programs. This recommendation really went hand in hand with some of the research needs that were outlined in the 2012 stock assessment for river herring.

In November of 2015, staff worked with NOAA Fisheries in pulling together a data standardization collection workshop that was approximately two and a half days in Baltimore.

We had 30 participants, including 15 state agencies, 2 federal agencies, NOAA and U.S. Fish and Wildlife, 1 federally recognized tribe, and members from Canada's Department of Fisheries and Ocean. Going into the workshop we had each of those representatives send us their monitoring program write-ups first, and their data; to kind of categorize it by survey type, to really try to break it out and discuss each of these really by category and biological sampling. Coming out of that workshop, the group was able to make a number of recommendations, as I said by survey type, looking at what are the best ways to move most of the surveys that are being conducted along the coast towards a more standardized approach?

That was generated primarily from those state and federal partners who are currently leading those surveys, and have been doing them for a long time series. Trying to get these surveys in line in term of a standardized approach, by survey type, is really important for being able to compare across different parts of the coast; and this approach is useful for helping us move forward in the next stock assessment.

In highlighting both what the best ways to move towards standardization and the financial cost in doing so, the workshop was really useful in outlining how we can start to move things towards more uniform approaches across different regions of the coast. The other part was recommendations on biological sampling, to make sure that all the current agencies involved in monitoring river herring are able to collect the same data, and was able to then utilize that in the next assessment.

The workshop report was completed in early 2016. We have it now up on our website. It was included in the meeting materials. We

have a hard copy available in the back of the room if people are interested. At this point, I'm happy to take any questions. I'll also point out that Jeff Kipp was also there, and took part, and between the two of us we're happy to answer all questions you have on the workshop.

CHAIRMAN GOLDSBOROUGH: Questions on the workshop. Seeing none; thank you, Kirby. Let's move on then to Agenda Item 6.

UPDATE ON ACTIVITIES OF THE RIVER HERRING TECHNICAL EXPERT WORK GROUP

MR. ROOTES-MURDY: On a related note, I'm going to provide you guys an update, on some of the activities of the River Herring Technical Expert Working Group, also referred to as the TEWG. TEWG activities in 2015, some of the major highlights that I just wanted to make clear to the board were this time last year the conservation plan was made available online.

This is a website that lives on NOAAs website, and basically lays out all the current monitoring programs, the research needs, the management program in place for river herring across the coast; and it was helped informed by the TEWG in providing the specific information that is needed to further the conservation of river herring.

In addition to the Conservation Plan there was funding of a number of restoration projects, including doing run counts in the St. Croix Watershed, doing dam removals on the Exeter River, and barrier removals in Connecticut. Another important point that will be touched on later on today, with climate change, is NMFS participation in the Northeast Fisheries Science Center's Climate Vulnerability Assessment.

One procedural thing that I wanted to highlight for the board moving forward is that the TEWG leading up to making the Conservation Plan publically available, had been meeting quarterly and having subcommittee meetings in support of those quarterly meetings. Because the Conservation Plan is now online and we are in more of a maintaining that plan and providing updates when needed, full TEWG meetings are now going to be twice a year. Subcommittees can still meet as often as they see are needed for talking about issues relevant to their subgroup, but there will be a move to also have an annual report that highlights what the previous year's big research endeavors were, conservation endeavors, and outcomes of TEWG meetings.

We're in the process of finalizing the 2015 Executive Summary. That has gone out to TEWG members this week, and we will hopefully have that up online in the next couple weeks. With that I'll take any other questions there are on TEWG activities.

CHAIRMAN GOLDSBOROUGH: Questions for Kirby on the workgroup? You guys are making it way too easy. Let's move on to Agenda Item 7.

CONSIDER APPROVAL OF 2015 SHAD AND RIVER HERRING FMP REVIEW AND STATE COMPLIANCE

MR. ROOTES-MURDY: I'm going to go through the 2015 Shad and River Herring FMP Review and Compliance Report. Generally there has been a steady decline in landings over time, as many of you are aware. This has been in part to the moratorium that was implemented through Amendments II and III. States with shad commercial landings were New Jersey, Virginia, North Carolina, South Carolina, and Georgia.

States with river herring commercial landings were Maine, New Hampshire, New York, Maryland, North Carolina, and South Carolina. Again, states that are able to maintain these fisheries are ones that have demonstrated through their sustainable fishing plans that they can do so. This is a report again for 2014 fishing year as opposed to 2015.

We have a lag in the time between when we received compliance reports and were able to report out on them. In 2014, a total of 776,000 pounds of American shad were landed and 1.8 million pounds of river herring were landed, and 119,000 pounds of hickory shad were landed; and this is coastwide.

The largest states for landings of shad were North Carolina and South Carolina, and the largest landings for river herring was Maine at 1.8 million pounds. In looking at river herring passage counts, the states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, Pennsylvania, Maryland, and South Carolina all currently collect data on river herring passage counts.

Coastwide in 2014, 2.86 million river herring were counted. Coastwide for shad it was 747,000 shad. What this represents relative to the 2013 fishing year, is about a 1 percent increase in the passage counts for river herring and about a 96 percent increase for shad. When looking at coastwide stocking programs, currently Maine, Massachusetts, Pennsylvania, North Carolina, and South Carolina are currently engaged in stocking programs.

For 2014, 26.4 million shad were introduced and contributed, as well as 296,000 alewives. Percentage increase is relative to 2013 is about a 45 percent increase for American shad, relative to 2013, and about a 10 percent increase for river herring; compared to 2013. Another component of the shad and river herring compliance reports are sturgeon interactions.

In 2014 there was 101 interactions reported in the states of Rhode Island, Connecticut, New Jersey, North Carolina, South Carolina, and Georgia, all released alive with the exception of one fatality. Last, in terms of de minimis requests. The states of Maine, New Hampshire, Massachusetts, and Florida have submitted de minimis requests for shad and for river herring. New Hampshire, Massachusetts, and Florida have requested for river herring and all these

states meet the requirements for de minimis. At this point I'll take any questions any of the board members have on compliance reports and FMP review for shad and river herring.

CHAIRMAN GOLDSBOROUGH: Questions for Kirby. John Clark.

MR. JOHN CLARK: I just wanted to point out you didn't have Delaware listed as a state that is stocking shad, and we are.

CHAIRMAN GOLDSBOROUGH: Other questions on the FMP Review or the Compliance Reports or the de minimis requests. Bill Adler.

MR. WILLIAM A. ADLER: Is it appropriate for a motion to accept the de minimis recommendations yet?

CHAIRMAN GOLDSBOROUGH: If I see no other hands. Can we take this hand first Bill, I'll come back to you. Cheri.

MS. CHERI PATTERSON: I just had a question on the Compliance Reports. On unreported, again I'm sorry; I'm a little new to this committee or this board. What is done with all of the unreported information that is indicated in the states compliance reports?

MR. ROOTES-MURDY: It is a good question. You're referring to the biological sampling requirements that are asked of the states, or samplings that are done of different fisheries?

MS. PATTERSON: Well, I believe that there are standards that are defined, as to what a compliance report needs to submit. I presume that if those are not included in the compliance report that that is what is reflected under unreported information and compliance issues. Are those ever pursued to be completed throughout the year, or are they something that is a repetitive pattern that is never really addressed and we're missing information due to all this?

MR. ROOTES-MURDY: It is a good question. For shad and river herring, one of the issues we've run into is that because there has been a moratorium for much of the fisheries that used to be in place for both species along the coast. A lot of the reporting requirements, for biological sampling that are contingent on recreational fisheries, and commercial fisheries to be taking place, then preclude us from being able to get data on those fisheries when they are no longer happening.

There are requirements that came out of Amendment II and Amendment III, asking for states to have these reports out annually, but if they don't have those fisheries anymore, then they no longer are able to collect that data. The other issue that a number of the states have is in terms of funding and staffing. That if they aren't able to annually provide that data through a fishery independent survey, because they don't have staff able to do it, then it becomes an issue where they annually aren't able to report out on it, even if it is a requirement.

MS. PATTERSON: Is that defined? It isn't really indicated that clearly on a state-by-state basis under the under reported information. Can that in the future be defined; so that we can understand those reasoning are behind some of this unreported information?

MR. ROOTES-MURDY: Yes, and this was discussed by the Plan Review Team, and we took notes on that and went through each item that a state, for example hadn't provided information and was noted. Though I thought I provided summary information under that for most of the states. If you have specifics on certain states, I can go back and give you some more information; and in the future we can look to provide more information under each of those items that are not listed in depth.

MS. PATTERSON: Yes, I'm willing to take this offline. Thank you.

CHAIRMAN GOLDSBOROUGH: Any other questions for Kirby? Roy.

MR. ROY W. MILLER: Mr. Chairman I'm curious about the Massachusetts de minimis request for river herring. Mike, I seem to recall many years ago now, a considerable effort on the part of Massachusetts for providing fish passage for river herring. Has that program fallen on hard times? It was Buzzy DiCarlo, if memory serves that was your expert in that regard. Have the river herring subsequently disappeared from those systems that were laddered?

MR. MICHAEL ARMSTRONG: No, actually the program is quite robust, and our runs are really back to historic levels right now, in part due to the ladder work we've been doing. But we requested de minimis, because right now we have zero harvest from the runs.

CHAIRMAN GOLDSBOROUGH: Other questions? Okay Bill, I'm back to you.

MR. ADLER: I would like to move to approve the 2015 FMP Review of the 2014 Fishing Year, and approve these de minimis requests for river herring, New Hampshire, Massachusetts, and Florida and for shad, Maine, New Hampshire, Massachusetts, and Florida.

CHAIRMAN GOLDSBOROUGH: Thank you, Bill, is there a second? Second from Steve, is there any discussion on the motion? Seeing none; all in favor raise your right hand please. Oops, I'm sorry. We're going to wait until we get the motion up on the board; make it official here. Okay, Bill, does that reflect your motion? Okay let's try this again. Motion is on the board, all in favor please raise your right hand; opposed same sign, abstentions, and null votes. Motion passes unanimously. All right we're on to Agenda Item 8, Roy.

ELECT VICE-CHAIR

MR. MILLER: Mr. Chairman, just out of curiosity, considering what we just did. Since so

many states are closed for river herring directed harvest, like in our state are. Perhaps in this next updated stock assessment, it would be good if we reexamined the definition of de minimis, and what the requirements are for a de minimis state; in terms of reporting.

CHAIRMAN GOLDSBOROUGH: Good point, Roy, thank you. Okay, as I said at the outset, I have just descended to the Chair, which means the Vice-Chair seat is vacant and we need to fill it. I'll take any motions for Vice-Chair. Mike Armstrong.

MR. ARMSTRONG: I would move to nominate John Clark as Vice-Chair to the Shad and River Herring Management Board.

CHAIRMAN GOLDSBOROUGH: Thank you, Mike, is there a second? I see a second from Dave Simpson. We need Pat Augustine here, but maybe lacking that I'll just go the old fashioned way and say, all in favor please raise your right hand, opposed same sign, abstentions, and null votes. Seeing none; the motion passes unanimously. Congratulations, John, and thank you.

ADJOURNMENT

CHAIRMAN GOLDSBOROUGH: Is there any other business to come before the Shad and River Herring Board? Seeing none; we are adjourned.

(Whereupon the meeting was adjourned at 12:33 o'clock p.m. on May 3, 2016.)