

**PROCEEDINGS OF THE**

**ATLANTIC STATES MARINE FISHERIES COMMISSION**

**HORSESHOE CRAB MANAGEMENT BOARD**

**Hilton Mystic**  
Mystic, Connecticut  
**October 30, 2014**

**Approved November 5, 2015**

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6. **Motion to adjourn**, by Consent (Page 12).

**ATTENDANCE**

**Board Members**

Bill Adler, MA (GA)	Stewart Michels, DE, proxy for D.Saveikis (AA)
Jocelyn Cary, MA, proxy for Rep. Peake (LA)	Bernie Pankowski, DE, proxy for Sen.Venables (LA)
Robert Ballou, RI (AA)	Roy Miller, DE (GA)
David Borden, RI (GA)	Tom O'Connell, MD (AA)
Rick Bellavance, RI, proxy for Sen. Sosnowski (LA)	Bill Goldsborough, MD (GA)
David Simpson, CT (AA)	Russell Dize, MD, proxy for Sen. Colburn (LA)
Lance Stewart, CT (GA)	John Bull, VA (AA)
Rep. Craig Miner, CT (LA)	Rob O'Reilly, VA, Administrative proxy
James Gilmore, NY (AA)	Robert Boyles, Jr., SC (AA)
Emerson Hasbrouck, NY (GA)	Malcolm Rhodes, SC (GA)
Tony Rios, NY, proxy for Sen. Boyle (LA)	Spud Woodward, GA (AA)
Russ Allen, NJ, proxy for D. Chanda (AA)	Pat Geer, GA, proxy for Rep. Burns (LA)
Tom Fote, NJ (GA)	James Estes, FL, proxy for J. McCawley (AA)
Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)	Mike Millard, USFWS
Russ Allen, NJ, proxy for D. Chanda (AA)	Derek Orner, NMFS
	Martin Gary, PRFC

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

**Ex-Officio Members**

Penny Howell, Technical Committee Chair

**Staff**

Robert Beal	Marin Hawk
Toni Kerns	Kirby Rootes-Murdy

**Guests**

Doug Grout, NH (AA)	John Clark, DE DFW
Dennis Abbott, NH	Jack Travelstead, CCA
Sherry White, USFWS	Raymond Kane, CHOIR
Brandon Muffley, NJ DFW	

The Horseshoe Crab Management Board of the Atlantic States Marine Fisheries Commission convened in the Grand Ballroom of The Mystic Hilton, Mystic, Connecticut, October 30, 2014, and was called to order at 8:30 o'clock a.m. by Chairman James J. Gilmore, Jr.

### **CALL TO ORDER**

CHAIRMAN JAMES J. GILMORE, JR.: Good morning, everybody. Welcome to the Horseshoe Crab Management Board. My name is Jim Gilmore; I'm the administrative commissioner for New York. I will be chairing the meeting and I'm actually taking over the chair from Dave Simpson of Connecticut. We thank Dave for his two years of service to the board.

### **APPROVAL OF AGENDA**

CHAIRMAN GILMORE: We're starting a little late so for all the people not at the Striped Bass Meeting yesterday, please indulge the folks that were there. The first order is approval of the agenda. Any changes to the agenda? Seeing none; we will take that as accepted.

### **APPROVAL OF PROCEEDINGS**

CHAIRMAN GILMORE: We have the Proceedings from the February 2014 meeting. Are there any changes to the proceedings? Seeing none; we will list those as accepted.

### **PUBLIC COMMENT**

CHAIRMAN GILMORE: Before every meeting, we take public comment on any issues not on the agenda. Are there any comments from the audience on things not on the agenda? Seeing none; we'll move right along. Our next order of business is the technical committee met with the Delaware Bay Ecosystem Technical Committee to discuss the Shorebird and Horseshoe Crab Survey Report Summary and ARM Framework Harvest Output for 2014. Penny Howell is going to go through a report on that and we will have some action after this.

## **HORSESHOE CRAB TECHNICAL COMMITTEE REPORT**

### **SHOREBIRD AND HORSESHOE CRAB SURVEY REPORTS SUMMARY**

MS. PENNY HOWELL: Okay, the technical committee reviewed the Horseshoe Crab Abundance Indices from six sources of information. I'm just going to summarize a few here and highlight two principal sources of indices. The first would be the Delaware Bay Horseshoe Crab Spawning Survey. The indices show that there is a fairly steady abundance.

The males were increasing slightly but with no statistical significance. The females were slightly decreasing but again with no statistical significance. The next source I just want to review is the Delaware Trawl Surveys. There is actually more than one. The first one is the 30-foot trawl catch summarized over all months; and you can see that the overall population is fairly steady.

It is below levels in prior years, but the last few years have been – there is no trend. The highlight is the 16-foot trawl catch of adults. Again, it is a steady trend; slight increase in the last year; again, lower than prior years but no trend in recent data. For juveniles, the picture looks a little better. There is an increase in recent years.

We had a little drop in the last few, but 2013 bounced up a bit. Both the Horseshoe Crab and Shorebird Technical Committees agreed that the surveys reflect little change in the status of horseshoe crabs in the Delaware Bay Region and the population has been stable since 2009.

Moving on to the red knot status, the Horseshoe Crab and Shorebird Technical Committees reviewed the red knot abundance in the Delaware Region and in Tierra del Fuego in Argentina. The abundance in the main wintering areas in Tierra del Fuego has not increased during the study period of 2004 to 2013.

Moving closer to home, the abundance of red knots in the Delaware Bay has remained low but relatively stable over the last decade. The proportion of red knots reaching the trigger weight of 180 grams, which is most important for

horseshoe crab management, has improved in four of the last five years in the previous survey.

**ARM FRAMEWORK HARVEST OUTPUT  
FOR 2015**

MS. PENNY HOWELL: Okay, moving on to the ARM Framework Procedure for 2015; the ARM Framework requires two data estimates on an annual basis; horseshoe crab abundance and red knot abundance. Since the framework process started, the Virginia Tech Trawl Survey has provided the estimates for horseshoe crab abundance.

However, funding in 2013 was not received; so the Virginia Tech Trawl Survey was not conducted in 2013. In the absence of the abundance estimates from this survey, the ARM Working Group decided to use the Horseshoe Crab Catch Indices from the Northeast Area Monitoring Assessment Program, or NEAMAP, to estimate abundance.

The Virginia Tech Trawl Survey was designed specifically to obtain an estimate of the horseshoe crab abundance; and while the NEAMAP Survey is not directed toward horseshoe crabs, that is the first slight problem here. In addition the surveys were conducted during different times of day and used different gear.

There are several structural reasons why the two datasets may not be compatible even though the NEAMAP data was honed down to match as much as possible the original Virginia Tech Survey Dataset. The results found that the correlation between the two surveys was not consistent, significant and positive for females while insignificant and negative for males.

Since the fishery harvests only males at this time, this was a critical flaw. The ARM Working Group presented four options for the technical committee for their consideration. While both technical committees agree that the annual datasets are the core of the ARM Framework, there was too much uncertainty in the accuracy of the NEAMAP data to recommend Option 2 or Option 3, which use the NEAMAP abundance estimates to calculate the equivalent Virginia Trawl Survey Abundance Estimate.

The technical committee agreed that Option 1 or status quo was the best available option to use for this year's ARM Framework and specification-setting process in the absence of the Virginia Tech Trawl Survey data. However, the technical committees agreed that this option should be used as a stopgap for 2014 and not extend it into the future and strongly recommends that more reliable estimates of abundance should be investigated for the 2016 analyses.

Some suggestions include finding funding for the Virginia Tech Trawl Survey; investigate abundance indices to estimate abundance or adapt the sampling design of the NEAMAP Survey to better accommodate the ARM Framework data needs. That last option is highly unlikely. In light of the structural dependence of the ARM Framework on the Virginia Tech Trawl Survey data as it was originally developed, the ARM Working Group has also agreed to investigate adapting the ARM Framework methodology to the NEAMAP data by reconfiguring the model. They're going to be looking into that in their next meetings.

As a result, the ARM Framework recommendation is based on the status quo. The selected Harvest Package 3 allows 500,000 Delaware Bay male horseshoe crabs and zero female horseshoe crabs in the following quota. The last topic to look into is the artificial bait trails. So far Connecticut has successfully completed two trials.

The board directed the technical committee to conduct field trials in the conch and eel fisheries to quantitatively compare the effectiveness of an artificial bait product developed by La Monica Fine Foods of Millville, New Jersey, to compare it to the presently used horseshoe crab bait in the fishery.

Although Massachusetts, Rhode Island, Connecticut and New Jersey all volunteered to participate in the trials, only Connecticut has successfully completed the trials to date. Two trials sets were made in early summer with one fisherman. The fisherman carried out his useful fishing methods using the artificial bait alternating

trap by trap with whatever bait product that he usually used.

Although these initial trials appear to demonstrate that this alternate bait product is an adequate substitute for whole horseshoe crabs, full analysis of the catch data should not be done until more than two trials are completed. That gets to the point that the major stumbling block with completion of this study was the lack of cooperation by La Monica Foods in delivering the product.

After several discussions with ASMFC staff, technical committee members and the product company people highlighting the importance of catering to the needs of fishermen in order to successfully promote the use of this alternative bait to the conch and eel fishing industry, company officials were completely inflexible as to where, when and how the product would be made available. For these reasons the trials were suspended, Massachusetts and Rhode Island withdrew; and until these issues can be resolved, I'm not sure that these trials are going to be able to go forward. That's the end of my report.

CHAIRMAN GILMORE: Any questions for Penny? Bob Ballou.

MR. ROBERT BALLOU: Penny, I want to explore what you just reported on regarding the inflexibility of the company that provides the artificial baits. Why would it not be an incentive for a company to try to work with the fishermen given the potential profits that they might make by having their product utilized? I want to try to drill deeper into what is going on there; and if you add a little bit more to your report on that, thank you.

MS. HOWELL: In my opinion the company is not ready for primetime. I don't think they realize the position that they're putting us in and the position that fishermen are in, which is unbelievable. I don't understand why they don't. We've had many discussions. Marin had many discussions with them.

The product was supposed to be delivered – we were told and given instructions, which were passed on to the fishermen, that would be in

blocks. They weren't in blocks. The first product that was delivered had been sitting at the dock. They insisted that we go to New Bedford to pick it up even though they go right past Connecticut and could have just gone off an exit on the highway. We would have met them on the highway if need be and they refused. They only would deliver it on Mondays and – or two days of the week – I don't remember which one it was – and we had to tell them the Friday before.

Well, the fisherman wasn't sure when he would be setting gear; so that meant that the product that we got at best was a few days old. This is a mixture of clams and a few other things. If can imagine what old bait smells like, you're there. This had the consistency of thick oatmeal; so getting it into a bait bag was a little problematic. The fisherman ended up using more than what was supposed to be this very small amount. He was concerned about what the price was going to end up being. It was all kind going downhill very quickly.

MR. WILLIAM A. ADLER: Mr. Chairman, a couple of things. First of all; did you say that the horseshoe crab levels are stable? That was my first question; overall?

MS. HOWELL: In Delaware Bay. Those reports were just for Delaware Bay.

MR. ADLER: Okay, and my second thing goes to the artificial bait thing. Was there any result from the one trial that was done as to whether it worked?

MS. HOWELL: Yes; as I say, I hesitate to be too quantitative because the sample is so small; but, yes, the bait is viable. The fisherman was satisfied with its performance. He was not satisfied with what he to go through and get it; but once he got it and used it, it worked.

DR. DAVID PIERCE: Two questions. The first one is with regard to NEAMAP. I'm a member of the NEAMAP Board; and I continue to hope that we will be in a position to use the results from NEAMAP for indices of abundance for a wide variety of species. We do see some positive information coming out relative to that use.

I note that the technical committee has indicated that the NEAMAP information cannot be used at this time; and there is a recommendation that we work with the NEAMAP Survey to modify equipment and procedures to better sample horseshoe crabs. My question is has there been any communication with the NEAMAP Team, the researchers involved with NEAMAP to determine if this is a recommendation that actually can be used; that they can be guided by? They can really modify the equipment and procedures to do that?

MS. HOWELL: Yes; I under there has been discussion. They offered to make slight modifications; but on the other side of the table, the modeling group also wanted to look into modifying the model procedures as well. Since the model was really formulated around the Virginia Tech Trawl Data, a lot of this is data imprecision issues.

There are two ways to get at this. One is modifying the – actually, not so much modifying it. I think it is getting more sampling in the areas that need to be done and a gear change. But not to put it all on NEAMAP, the other side of it is the modelers are going to look into the model format and see whether some statistical analyses can be used that are more compatible with the NEAMAP procedures.

DR. PIERCE: Then, finally, in your discussion on the review of the Shorebird Surveys, I note from the report itself that abundance of red knots in the Delaware Bay has remained low but relatively stable over the last decade. Then the concluding statement is “lacking a rise in abundance, red knots may be listed as threatened in the near future.” The important point made by the technical committee is that a boost in crab productivity is needed to change this trend. Obviously, crabs are important, as we all know.

Was any work done by the technical committee recently or even in the past that will give us some guidance as to what sort of change in crab productivity is needed to change this trend in red knot abundance that would move us away from the possibility of there actually being a listing of red knot as threatened?

MS. HOWELL: The shorebird technical people have felt that unless we get the spawning abundance back up to what it was in the early nineties; that the birds are still in jeopardy of not making adequate weight. The Horseshoe Crab Technical Committee is not so sure that is really the limiting factor. That is an open question.

MR. ROY MILLER: Thank you, Penny, for the report. There are three things in your report, unfortunately, that I find disturbing; and I’d like to list them. One is our inability to fund the Virginia Tech Trawl Survey; that has already been discussed. The other thing that disturbs me is the apparent lack of cooperation of the artificial bait supplier.

Those of us in the Mid-Atlantic Region and especially those of us on the Delaware Bay placed a great of the Department of Natural Resources money to support the development of artificial bait into the hands of the scientists that were conducting our research; so naturally we would like to see that investment pay off some day and was disappointed that thus far it hasn’t translated into suitable field trials. The third thing I find disturbing is the apparent lack of recovery of female horseshoe crabs. None of this is your fault, Penny; please don’t take this personally.

MS. HOWELL: I don’t.

MR. MILLER: But I’m wondering if you would care to offer any speculation in your opinion why there has been – in spite of years now of conservation on the parts of the resource agencies why there has been no apparent recovery of female horseshoe crabs and even the male horseshoe crabs are not showing perhaps the depth of recovery that we would have liked. Care to speculate on that in any way? Thank you.

MS. HOWELL: As long as you recognize that it is speculation; my speculation is that this is a slow-growing animal that really is going to take at least ten years to get one generation of mature females into reproducing. The fact that we’re seeing juveniles coming up I think is indication that the conservation efforts are successful; maybe not successful enough; but the biology of the animal is not going to speed that up too fast.



The other part of it is I think that the stock recovers like almost spreading out; so it is not a pinpoint recovery. You will see numbers go up slightly and then it will spread out geographically. As it builds, it builds a slow base, if you will, and then the numbers will go up from there. The animals do migrate in small amounts; and I think you're going to have to see a recovery of the entire Chesapeake, Delaware and New Jersey sub-stock before you'll see really good numbers coming into the bay. That is my speculation.

MR. MILLER: Thank you for that; and if I could just follow up, Mr. Chairman, very quickly. The other disturbing thing, of course, is the failure of red knots to recover at least in the Delaware Bay area and it also sound like the Tierra del Fuego population hasn't recovered either. There are a lot of potential reasons for that, let's put it that way, and we've heard them all over the years.

Do you personally feel that the failure of the female horseshoe crab population and the failure of the recovery of the female horseshoe crab population or at least, let's put it this way, perhaps the slow nature of the recovery; do you really think that is continuing to depress the red knot numbers or do you think the external factor is driving the red knot numbers?

MS. HOWELL: You're really going to push me to the line here. Again, as long as you recognize that it is personal speculation; I think that the linkage between the weight gain and the horseshoe crab egg abundance is real and a limiting factor. The fact that the weight gain is adequate and increasing is reflective of the conservation efforts and the slow increase in the stock.

That is the slow increase. It is not fast enough and it is not overriding the other limiting factors that the birds have that I'm not in any position to comment on. Maybe if we flooded the entire Delaware Bay with tons and tons of horseshoe crab eggs, it would override the other limiting factors or maybe it wouldn't. That is an experiment that I don't think anybody is going to be able run. There is a linkage; they both are stable and increasing in incremental ways. I feel

like I'm the president talking about the economy. We're getting there but very slowly.

MR. STEWART MICHELS: Penny, that was a great report and an excellent summary, by the way. I was just wondering has the technical committee had a chance to look into using some of the other existing surveys and modifying them in place of the Virginia Tech Trawl Survey, like the Delaware Bay Spawning Survey or the New Jersey Clam Survey; or is it just too early yet that you guys haven't gotten to that?

MS. HOWELL: They are going to be looking into that. I did skim over the fact that the New Jersey surveys, the Ocean Trawl Survey, the Delaware Bay Surf Clam Survey was looked at. The Maryland Horseshoe Crab Spawning Survey, the Delaware Bay Horseshoe Crab Egg Survey and the Delaware Bay and Atlantic Fly-Away Red Knot; I mean, there is a whole lot more information we're looking at. I just didn't want to give this long laundry list.

The thing is that the framework was built around the Virginia Tech Trawl Survey; and for better or worse, it went forward that way. Now there is some possibility – and I'm putting a lot of weight on the working group to come up with a better statistical analysis. After they build this really nice model, now we're asking them to completely change it.

DR. MICHAEL MILLARD: I want to follow up on Stew's comment to note that – and, of course, the loss of the Virginia Tech Trawl Survey is of concern and it would be nice to have it funded again; but if it comes back in a mode of a year-to-year funding, that's not really a model for a successful effort. We can't live under that uncertainty I think year to year.

To follow up on Stew, then I think we should look to these other surveys. The technical committee should consider developing some kind of index from these ongoing, more secure surveys and somehow work that into the model. If we can make NEAMAP work, so much the better; but I was at that one meeting and it didn't sound very promising to me at least at that point. I would encourage the technical committee to look at these

other ongoing surveys and somehow move those or move the modeling effort towards them so they can meet in the middle.

MS. HOWELL: Just to follow up briefly on that; Mike makes a very good point. The thing that is most important to getting this management model to work is a long-term trend because of the lengthy nature of the biology and the interaction with that and the birds. We feel like we're stepping on rocks in a river that which survey is going to be the long-term survey that we can depend on is the question.

MR. GILMORE: Just a question maybe to Bob; yesterday at the executive committee meeting, it was talked about they're pursuing additional funding. Is that a one-shot deal or was that something that was longer term?

EXECUTIVE DIRECTOR ROBERT E. BEAL: Well, we'll take whatever we can get I guess is the short answer. Yes; we've been up on the Hill having discussions about this over the last month or so. There are a few congressional offices on the House side and Senate side from New Jersey and Delaware that are interested in finding some money for this project.

We're going to keep working with them. We're on a continuing resolution and we're kind of all in a holding pattern, but we're going to keep working on it and hopefully we'll be able to come up with some money. Again, it is definitely not a guaranteed long-term source; but it is one of those things if you can get it woven into the federal budget enough times, then people get used to it and it kind of becomes a long-term funding. We're trying to get that going. We've had some pretty successful meetings and there is a lot of interest and a few letters flying around or being drafted right now, anyway. We're going to keep pushing, but it is not guaranteed long term.

MR. ADLER: Other factors in the red knot; I didn't know what they amount to, but I have heard over the years that there are other factors that can be limiting the growth of the red knot stock; and it might not just be the horseshoe crab. Do they eat other things other than horseshoe crab eggs was one of my questions? Do they know whether they

have another food source besides horseshoe crab eggs?

MS. HOWELL: Yes, there is other food out, but the key is with this long-term migratory bird by the time it gets up to Delaware, it is almost physiologically exhausted. Many of these birds actually digest part of their organs in order to keep flying. They could eat other foods, but other foods are much more difficult to digest, such as small clams or even worms and stuff.

They really need the equivalent of white bread to eat. Eggs are the ideal for them, very high energy, very easy to digest. There are other food options but this one really nutritionally is far superior given their deteriorated state when they finally make it from Argentina all the way up. You can understand that a small bird that migrates from Argentina to the Arctic Circle is exposed to all kinds of other mortality factors.

MR. ADLER: Can we develop an artificial food for the red knots? Maybe we could call Lamonica or whatever it is. I didn't know, Mr. Chairman, if you needed a motion to accept this report?

CHAIRMAN GILMORE: Not yet, Bill; I think we're going to go through a presentation on that and we'll get into that. Lance Stewart.

DR. LANCE STEWART: Penny, one of the things I was wondering if it has been followed up in the trawl survey is nocturnal studies. I had suggested about two or three years ago that if the Virginia Trawl Survey was going to have any real relevance – I think what I've seen in many years of studying lobster at night with scuba gear is that horseshoe crabs come out of the sediment at night. You could have orders of abundance greater in your trawl surveys if they had tried that. Since the amount of leverage that trawl survey has on the condition of red knot and everything else, I would think that would have been a variable that would have been tried to be corrected.

MS. HOWELL: I'm sorry, Lance; I don't understand the question you're asking.

DR. STEWART: If the Virginia Trawl Survey had been directed at conducting nocturnal trawl

surveys; I would suggest – and I don't know because it hadn't been done – that their abundance indices per trawl would be extremely higher than during a day survey. I don't know if you have corrected for that or anything.

MS. HOWELL: Yes; the working group did do a correction for the day/night. That is the whole process they went through to try to make the NEAMAP data match by doing corrections for just what you're discussing.

DR. STEWART: I've never seen that and I just wondered.

MS. HOWELL: We had a report that just summarized the end result. They didn't make a report of all the internal steps that they made.

DR. STEWART: So in summary it didn't make any difference at all?

MS. HOWELL: It did; and they adjusted it. Even with the adjustment, the indices didn't – they were looking for trends and not actual numbers. They were trying to get a trend match. You're right; the NEAMAP numbers were lower than the Virginia Tech, which would be understandable, but they were looking to get a trend match. It matched for the females but it did not match for the males and reasons for that are varied.

MR. BALLOU: So, Penny, it seems clear the board shares your frustration regarding the problems with the artificial bait trials. Do you have a recommendation as to what might be done or what could be done to get that back on track?

DR. STEWART: The product has to be made available. At least for a trial basis, they've got to be able to deliver it to us somewhere close, like within the state, especially when they're going right by. Their insistence that it only be delivered to New Bedford was a real impediment. The other thing is they've got to work out the consistency of the product.

They said that it couldn't be frozen. Our fisherman froze it and said it worked fine. It is unfortunate that it has to be frozen because that was going to be one of the things that would bring

the price down if they could buy it in large quantities and not have to freeze it. Running a freezer is expensive; but if that is the case, they ought to have told us that is how it needed to be handled.

They need to be more honest about how we're supposed to handle this stuff rather than telling us that it is in a nice neat block and then giving us stuff that you have to scoop out with an ice scoop; and making it available in more locations and more readily when we can use it and get it to the fisherman.

MR. BALLOU: I wasn't aware, frankly, that there had been some funding perhaps provided to help get this going. Now that I'm aware of that connection, is this something that the board might want to consider writing a letter? I mean is there something we can do other than just looking to you to try to do your best; and I understand you are. I just think I speak for the board in saying that we would be more than willing to try and do whatever we can to back you in your efforts to try to get this company to do what apparently they really to do and should be doing, particularly given the funding that has been provided. Thank you.

MS. HOWELL: I'd appreciate that help, yes.

MS. TONI KERNS: Just to give a little further detail, Marin and I did have several conversations, Marin more than myself, with the gentleman that owns the company to try to sort of help foster this partnership that we were going through with them. We did pay for the bait itself. We were not paying for delivery or else it was an added cost into the slabs of bait that we were paying for.

They were delivering other products up to New Bedford, and so that is why it was every Monday and Wednesday or every Monday and Thursday because that is when they made their regular deliveries. We can try to have some more conversations. I'm not sure a letter is going to have that much influence over the company itself. I don't know if the conversations will help. Marin has probably had at least five conversations with this gentleman about deliveries and product quality, et cetera.

**SET SPECIFICATIONS FOR 2015  
DELAWARE BAY FISHERY**

MS HAWK: I also think one of the largest issues is communication; so I'm not sure how successful a letter would be.

MR. DAVID V. BORDEN: Mr. Chairman, I arrived a little late this morning; so if I ask a question that has already been handled, just move me along.

CHAIRMAN GILMORE: Well, you get the last question because we're getting ready to move on after this.

MR. BORDEN: I'm just curious about this issue about freezing the product. At least in New England – I can't speak on behalf of the Chesapeake states; but in New England every single conch dealer that I know of has freezer facilities. They freeze their horseshoe crabs. They have frozen crabs and they have frozen mussels that they're all selling to the conch fishermen. If the product were frozen, it would be just an absolutely natural addition. They would just put it in the freezer; and when the fishermen come in, they dole it out. If it is frozen, they could keep it in coolers for days. It is like there is a disconnect here somewhere. Thank you..

MS. HOWELL: Yes; that is probably the way it is going to happen. We were just hoping that this product would – because there is a cost; that the cost would be offset by not having to freeze it. It looks like you're right; that it is going to have to be frozen just like every other bait product. That wasn't what the company told us ahead of time; so that had to be added. In fact, they were given instructions not to freeze it because it wouldn't work; and that is not true. It does work; it does work fine frozen. There is a little disconnect here.

MR. BORDEN: Is the formula private property or is this a formula that the commission has come up with?

MS. HAWK: There was a study at the University of Delaware; and there is actually a paper and the recipe for it is in the paper. Some of the ingredients are difficult to obtain.

CHAIRMAN GILMORE: Okay, I think we're going to move on now to setting the 2015 Delaware specifications. Marin is going to do a PowerPoint first and then we'll get into it.

MS. HAWK: This will be very brief. As Penny mentioned, the ARM Framework is what we use to set specifications. Usually we use the Virginia Tech Trawl Survey data as the horseshoe crab abundance index. We did not have that data this year so that was a hurdle. We also use the shorebird abundance that Penny went over.

Since we don't have that benthic trawl survey data, the ARM Working Group and the technical committee recommend status quo for the 2015 fishery. That is ARM Harvest Package Number Three, 500,000 male horseshoe crabs in the Delaware Bay Region. This is the horseshoe crab quota by each state in that region. Thank you, Mr. Chairman.

CHAIRMAN GILMORE: Any questions for Marin? Okay, I'm going to need a motion to move this forward? Bill Adler.

MR. ADLER: A motion for what? I mean, do you need a motion to accept all these reports?

CHAIRMAN GILMORE: To set the specifications; essentially the recommendations of the technical committee.

MR. ADLER: **Okay, I so move that we accept the report and the specifications.**

CHAIRMAN GILMORE: Stew Michels seconded the motion. Bill, could we specify that it is Harvest Package Three under that so it is clear?

MR. ADLER: Yes; add that in.

CHAIRMAN GILMORE: Is there any discussion on the motion? **Motion to accept the report and the specification of Harvest Package Three for the Delaware Region for 2015. Motion by Bill Adler and seconded by Stew Michels. Is there any objection to the motion? Seeing none; we will accept that as unanimously approved.**

**FMP REVIEW AND STATE COMPLIANCE**

CHAIRMAN GILMORE: Okay, moving on, the next agenda item is FMP Review and State Compliance. Marin.

MS. HAWK: This will also be very brief. This is the total harvest for horseshoe crabs by biomedical and the bait industry. I'm going to break it down a little bit for you. For the bait fishery there was a total harvest of 796,939 crabs, which is an increase of 18 percent from 2012. However, the harvest is still well below the coast-wide quota, which is 1.4 million crabs.

In terms of the biomedical harvest, the number of crabs that were brought to biomedical facilities was 549,937 crabs. This a 3 percent decrease from the previous five-year average. There was a total of 60,622 crabs that were used in the biomedical industry and bled that was transferred from the biomedical industry to the bait industry. That is actually a 33 percent decrease from the past five-year average. The coast-wide mortality estimate was 78,007 crabs.

In terms of state compliance, all states submitted reports. The PRT found that all state management measures were consistent with the FMP. The District of Columbia did not submit a report. As in years past, the PRT recommends that the District of Columbia as well as the Potomac River Fisheries Commission take steps to be removed from this board.

In addition, the PRT strongly recommends the continuation of the benthic trawl survey. I think the board agrees with that, so we'll continue working on that. Finally, there were five jurisdictions that requested de minimis. New Hampshire, Potomac River Fisheries Commission, South Carolina, Georgia and Florida all qualified and requested it. New Hampshire has been removed from the board. New Jersey qualified but did not request it. The PRT recommends granting all requests for de minimis. Thank you, Mr. Chairman.

CHAIRMAN GILMORE: Any questions for Marin? Bill Adler.

MR. ADLER: If the Potomac River Fisheries and D.C. are de minimis; do they still have to put in that report that they didn't put in?

MS. HAWK: The Potomac River Fisheries Commission submitted their report. They do have to submit one; but D.C. has not submitted one for at least two years.

MR. ADLER: And if they are de minimis, do they have to put that report in?

MS. HAWK: Yes, they do.

CHAIRMAN GILMORE: Other questions for Marin? Robert Boyles.

MR. ROBERT H. BOYLES, JR.: Mr. Chairman, is it an action by this board or is it an action by the commission to remove D.C. and PRFC?

MS. HAWK: I believe D.C. has to come to the commission and ask to be removed.

MR. BOYLES: I guess it is untoward to say anything about Washington ignoring the needs and the wants of the states. I guess that is out of line and out of order, right?

MR. BALLOU: Marin, it is nice to see a report that doesn't have any holes in it due to confidentiality issues. Is that because with regard to the biomedical figures that you put up there is at least three or more companies; is that why we're able to see the full report?

MS. HAWK: That is correct; there are five biomedical companies along the coast; so we can smooch them all together.

CHAIRMAN GILMORE: Anymore questions for Marin? Okay, I'm going to need a motion to accept the compliance reports. Go ahead, Robert.

MR. BOYLES: Just a technical question; D.C. is required to submit a compliance report but has not?

MS. HAWK: That is correct; and this now the third year in a row where they have not and have

not responded to any inquiries as to submitting a report.

MR. BOYLES: Mr. Chairman, I think that warrants some action by this board; would you agree?

CHAIRMAN GILMORE: Yes, I would, Robert, if essentially we're into the third year on this. I'm not sure of the procedure on this. Normally they would request to be removed from the board; but I guess we could put a motion up to remove them if the board sees fit.

MR. THOMAS O'CONNELL: In regards to this issue, Marin, you said that they haven't been responsive to inquiries. Has that been a letter or has there been a phone call? They were here this week; and I was wondering if the issue was brought up to them personally. I would think that they would be responsive but maybe I'm wrong.

MS. HAWK: It was not brought up this week. I have called and e-mailed but with no response.

MR. O'CONNELL: I would recommend maybe another follow-up call; and if they don't respond, then the board consider taking some action.

MS. HAWK: I also believe about a year ago when all the states declared interest in these boards; they were non-responsive in terms of horseshoe crabs as well.

CHAIRMAN GILMORE: Toni, would a letter be more appropriate on this because obviously they have talked to and a phone call is probably going to have the same result. Maybe something in writing might be more beneficial.

MS. KERNS: We can send a letter and an e-mail with that exact same letter and see what we can do.

CHAIRMAN GILMORE: Does that sound good for everybody on the board? Go ahead, Craig.

REPRESENTATIVE CRAIG A. MINER: If I could suggest that maybe someone as high up in our food chain as possible could make a phone call rather than sending a letter; I think that might be a

better step. It is amazing what happens when somebody gets the wrong letter.

CHAIRMAN GILMORE: Who do you suggest in the food chain?

REPRESENTATIVE MINER: Maybe a director or maybe the head of our council. It may just not be getting somebody's attention; but if somebody gets a letter from this group, it may not be the kind of attention that we want I guess is my point.

MS. KERNS: Why don't Bob or I give Bryan a call first to see if we can work it out; and if not, then we may ask for assistance from Tom since I know Tom does talk to Brian on a fairly regular basis. We know we might get a response from there. How about we try that?

CHAIRMAN GILMORE: That sounds like a great plan. Are you okay with that, Tom? Okay, that sounds like a good approach. Okay, I'm back to we need a motion to accept the compliance reports and the de minimis. Bill Adler.

MR. ADLER: **I make a motion to accept the compliance reports and the FMP Review.**

CHAIRMAN GILMORE: And the requests for the de minimis for the states up on the board?

MR. ADLER: **I'll that, the de minimis states of New Hampshire and Potomac River Fisheries Commission.**

CHAIRMAN GILMORE: Seconded by Dave Simpson. Is there discussion on the motion? David Pierce.

DR. DAVID PIERCE: Just a clarification, Mr. Chairman, regarding de minimis. Maybe there is a sequence I'm not quite appreciating here; but under the management plan review there is an action item. It indicates that Massachusetts and New York have also requested de minimis. Should this be modified to include New York and Massachusetts or is that the subject of another motion?

CHAIRMAN GILMORE: That actually was the subject of a typo. When I saw that, I thought that

was a test to see if I was actually reading the material. I don't think I'm going for de minimis. I don't know if Massachusetts is interested in de minimis. I think those were just typos in the original agenda.

DR. PIERCE: Well, I must admit I'm sitting in for my colleague, Dan McKiernan, and I didn't think we were requesting de minimis. When I see Massachusetts here in the list, it is a bit confusing, to say the least.

I'm going to assume that we're not requesting de minimis and that this is also mistake that we've been lumped in with our friends from New York. Unless someone in the room from Massachusetts knows differently, I'm not going to make a motion to include Massachusetts.

CHAIRMAN GILMORE: Rest assured, David, I've looked at it and Massachusetts and New York do not meet the requirements for de minimis. Any other discussion on the motion? Move to accept the compliance reports, the FMP Review and de minimis status for the states of New Hampshire, PRFC, South Carolina, Georgia and Florida. Motion by Mr. Adler; seconded by Mr. Simpson.

Is there any objection to the motion? **Seeing none; the motion is approved by unanimous consent.**

#### ELECTION OF VICE-CHAIR

CHAIRMAN GILMORE: Now we can move on to I believe our last order of business, which is we have to elect a vice-chair. Since I just took over and we don't have a vice-chair, we need to get one. There are some fabulous perks with this job, incredible travel. You can see great place on the east coast of the U.S. and a great species. Are there any nominations for vice-chair? Mr. Woodward.

MR. SPUD WOODWARD: **Mr. Chair, I would like to nominate Dr. Malcolm Rhodes from South Carolina as vice-chair.**

CHAIRMAN GILMORE: Wonderful; is there a second to that motion; Russ Allen. Robert.

MR. BOYLES: Mr. Chairman, I move we close the floor to nominations and that Dr. Rhodes be appointed as vice-chair by acclamation.

CHAIRMAN GILMORE: I think everyone agrees with that. Thank you, Mr. Boyles. **Congratulations, Dr. Rhodes, welcome to the team.**

#### ADJOURNMENT

Is there any other business to come before the Horseshoe Crab Board? Seeing none; a motion to adjourn. So moved. Thank you, everyone.

(Whereupon, the meeting was adjourned at 9:25 o'clock a.m., October 30, 2014.)