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

The Westin Crystal City
Arlington, Virginia
August 6, 2019

Approved October 29, 2019
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## ATTENDANCE

### Board Members

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<td>Raymond Kane, MA</td>
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<td>Sarah Ferrara, MA</td>
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<td>Bob Ballou, RI, proxy for J. McNamee (AA)</td>
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<td>Craig Pugh, DE</td>
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<td>Lynn Fegley, MD</td>
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<td>Phil Langley, MD</td>
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<td>Bryan Plumlee, VA</td>
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(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

### Ex-Officio Members

### Staff

- Robert Beal
- Toni Kerns
- Dustin Colson Leaning
- Mike Schmidtke
- Kristen Anstead

### Guests

- Nora Blair, Charles River Labs
- Syma Ebbin, UCONN
The Horseshoe Crab Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia; Tuesday, August 6, 2019, and was called to order at 3:00 o’clock p.m. by Chairman Malcolm Rhodes.

CALL TO ORDER
CHAIRMAN MALCOLM RHODES: All right let’s everyone take our seats. My name is Malcolm Rhodes; I’m the Chairman of the Horseshoe Crab Management Board. To my immediate right is Dr. Mike Schmidtke; who is the ASMFC staffer in charge of this area. I want to welcome everyone here.

APPROVAL OF AGENDA
CHAIRMAN RHODES: Everyone should have gotten previous notes on the agenda. Are there any changes to the agenda? Seeing none, we’ll take that as accepted.

APPROVAL OF PROCEEDINGS
CHAIRMAN RHODES: And we received the minutes from the last meeting. Emerson.

MR. EMERSON HASBROUCK: I would like to correct the proceedings from the May meeting to show that Emerson Hasbrouck was present as a Board member. I’m not listed here under the attendance, but in the body of the minutes there are my comments that are in there, so I was here.

PUBLIC COMMENT
CHAIRMAN RHODES: Excellent, so noted. With that change, any others, seeing none we’ll accept those. Are there any public comments on matters that are not coming before the Board? There was no one signed up for it, so we’ll move on to the fourth order of business.

CONSIDER MANAGEMENT RESPONSE TO 2019 HORSESHOE CRAB BENCHMARK STOCK ASSESSMENT
CHAIRMAN RHODES: At the last meeting Joe Cimino ran it beautifully, we got through the 2019 Horseshoe Crab Benchmark Stock Assessment.

It sounded like there was a lot of great discussion about what went on with that. Because of the lengths of those discussions and some salient points, the management response, certain parts of the management response had been touched on. But the Board as a whole did not come up with any plans at that point. That is where we are right now. At this point I’m going to turn the meeting over to Mike, and we will move forward from there.

DR. MIKE SCHMIDTKE: I don’t have a lengthy presentation, it really is just one slide, and it’s a reminder of some of the points that were brought up at the last meeting, after going through the benchmark stock assessment. These were some of the potential responses based off of the information from the assessment itself, as well as some actions that were delayed prior to the assessment taking place.

First of all, incorporation of the catch survey analysis population estimates into the ARM model. That direction was given by the Board and that process is underway. The ARM Subcommittee and the Delaware Bay Technical Committee will be meeting in person in September, to discuss exactly how this will take place, as well as how to present this information to the public, taking into account all of the aspects of that estimate related to confidentiality of biomedical information. The next point had to do with management changes in the New York region, if the Board would want any to be made. The New York region, as a reminder was given a poor status by the stock assessment.

This status reflected declining indices in that region, nearly all of the indices that were looked at from the New York region were declining. As a reminder to the Board there is this poor status, but it’s not the same thing as overfishing necessarily, because an overfishing threshold has not been established for this population.

In addition, the quotas that have been established for the states have not been exceeded for New York and Connecticut during that time. It’s not necessarily the same thing as overfishing, but it is a poor status that indicates a declining population in that area. The next part is draft Addendum VIII, which was postponed.
The plan initially is to take this up at the October, 2019 meeting when there is a bit more time for discussion if that’s necessary, and finally if the Board wants to consider any form of a review to the ARM model, the most recent ARM review was conducted in 2016, and that was a short term review.

Addendum VII defines a long term review that could be conducted of the ARM model that has not been done since the ARM Management Framework has been put into place. If the Board wanted to consider that that is a direction you all could go, but with the knowledge that there would need to be a significant investment of time and/or Commission funds, in order to make something like that happen. That is all I have, Mr. Chair and I’ll turn it back over to you.

CHAIRMAN RHODES: Okay thank you for that synopsis, and kind of an idea of where we’re going. In the intervening time I know the New York region has had several visits. We’ve had some phone conferences, and at this point if you all are ready, would New York or Connecticut have any state responses they would like to put before the Board?

MR. JAMES J. GILMORE: We’ve been talking with Connecticut, but let me give a little background on this. It’s what we understand is going on. New York’s harvest quota is 360,000 crabs a year. We reduced that several years ago, first down to about 175,000, we’ve gone down to 150,000. We’ve done about a 60 percent reduction in our harvest quota.

In addition to that we’ve incorporated significant monitoring. We have trip limits, we have essentially adjustments to those trip limits quite frequently during the year, and in fact I just closed the fishery last week, so there will be no fall fishery this year. We’re getting to the point right now that the problem of trying to continue to reduce harvest in New York is really probably not at the root of what the problem is.

One thing and I’ve stated this before at this Board, well let me say it more generically, because I do teach fisheries management. Moratoriums on healthy species are the worst thing you can do, because this is the problem it creates. When the moratorium was put into New Jersey, and I’m not faulting Jersey, because it was done by their Legislature, so the other reason why we never want Legislature to manage fisheries is because they create problems like this. When the crabs were essentially open in both states, they were going for about $0.25 a pound. When the fishery was closed in Jersey they shot up to about $3.00 a pound. Anybody that knows this fishery, you get a pickup truck and a refrigerator and you’re in the fishery.

We had quite a significant amount of poaching. We increased our law enforcement activities, in fact we were doing coordination with some of the County helicopters to catch these guys, but it’s just such a big fishery, and it’s such a good way to make profits. That all being said we’re looking at ways to do additional management.

The first thing that we can add on at this point is that we were essentially going to go what Jersey is already doing, and require bait bags, and see if that can essentially reduce the amount of harvest that we’re going to need. We are looking at some possible closures, but we don’t really know how to do that yet, particularly around the big spawning period.

We’re working on that right now, and our preference obviously is to do this as just a state action without having to do an addendum, so everyone has to do a lot of work. But again, I’m not optimistic that anything we do at this point is going to help, until we get a better sense of how to manage this fishery with a moratorium in it.

I’ve talked to Jersey, and again they understand this is a Legislative action, and they’ve done things to try to help out. I’m not sure if there are other things they do, and I’ll let them talk to that. But the data when we dissect it a little bit it’s very, very clear. The closer you get to the western part of Long Island in towards New Jersey, the numbers get worse.

It’s clearly that action that was done by their Legislature is having an effect on the population. My final statement, and I’ll give it over to Justin to add into it is that the action that the Jersey
Legislature did, did exactly the opposite of what we needed to do. It’s having a negative effect on the population. Maybe in Delaware Bay it’s helping them, in terms of keeping the population up, but on the entire regional area right now it’s having a detriment. I’ll turn it over to Justin.

CHAIRMAN RHODES: Justin.

DR. JUSTIN DAVIS: I think my remarks will largely mirror a lot of what Jim just said. We don’t share a border with New Jersey, so we don’t necessarily have the same concerns relative to that in the moratorium in New Jersey. But we do, I guess sort of feel that our fishery and imposing further restrictions on our fishery is probably not going to produce a significant effect on the horseshoe crab population.

We have a very small scale fishery. It’s really about a dozen fishermen participating in the fishery. Our harvest has been constant at about half of our quota for a number of years now. That being said, we also would prefer to approach this from a state level action. We have begun taking a look at measures that might potentially reduce harvest, such as reducing possession limits, or reducing the amount of time that we’re open.

We are open for a pretty restricted period as is. We’re open for about six weeks and we’re closed on the weekends during that period, so we already have a very short season. We’ve begun taking a look at potential measures that might help reduce harvest. We would approach that through our state regulatory process, which could take anywhere from six months to a year, depending on how lucky we get and how the chips fall out.

That is where we’re at right now. In Connecticut we’re starting to take a look at measures that might reduce harvest and hopeful for the next year to continue those discussions and move our regulatory process to address it. I will also say that we’re working in conjunction with New York on developing regulations for the whelk fishery in Long Island Sound. We would also be looking to mandate bait bags in that fishery, and hopefully reduce the amount of bait required.

CHAIRMAN RHODES: Thank you both very much, I’ll open it up to the rest of the Board for any questions or thoughts or concerns. Chris.

MR. CHRIS WRIGHT: Jim, when you closed the fishery this year how much harvest was there at that point?

MR. GILMORE: I don’t know the exact number, but it was around 150,000. I think we might have been slightly over. But it’s shut down now.

CHAIRMAN RHODES: Dan.

MR. DANIEL McKIERNAN: Yes for the record, Massachusetts adopted the Rhode Island lunar closures about ten years ago, and we think that this has had a real positive impact on recruitment. It was originally just May and June, and we even backed it up into April. For the better part of ten weeks we don’t allow any harvest over a five day period of the new and full moons.

CHAIRMAN RHODES: Stewart.

MR. STEWART MICHELS: Jim, that 150,000 horseshoe crab cap, I guess several questions; one is that sex specific at all? Then the other one is that in regulation, or is that just kind of an administrative policy of yours? Are there mandatory paybacks?

MR. GILMORE: Let me take them one at a time. It’s not a sex fishery, because in New York it’s different than Delaware Bay, it’s pretty much a 50/50 split, so a male only fishery would make no sense. Essentially those numbers are not specifically in regulations, but the ability to manage it is. We’ve had great success keeping it around that 150.

I think one year it got a little bit ahead of us, and we went up to 170,000, but we’ve generally stayed at that 150,000. Sorry, the last one Stew was? Yes there is no payback provision in it whatever. I will add as Justin had said about the bait bags. We’ve already put a rulemaking in place to implement those in New York, so that is already in process.

CHAIRMAN RHODES: Joe.
MR. JOE CIMINO: Just to address some of Jim’s comments. As you mentioned there was a conference call with Connecticut and New York. New Jersey sat in on that. New Jersey does require bait bags in the whelk fishery. They also require receipts. Anyone that is using horseshoe crab as bait needs to have receipts. I spoke to our law enforcement division and they said in both of those instances on their stops there is really good compliance, especially for the bait bags, since as Jim mentioned, these crabs are quite expensive.

The other thing that they noted was that in general these guys are already using less than a horseshoe crab, or whatever they feel is effective. I don’t know what else New Jersey can do. On that conference call the only other suggestion was consideration of alternative baits, but I think this Board is very familiar with that and it doesn’t seem like a viable option at this time. I’ll leave it at that.

CHAIRMAN RHODES: Dan.

MR. McKIERNAN: Yes what we’ve discovered in Massachusetts is a lot of the whelk potters were using green crabs. The legislature had put a bounty on green crabs with funding that we distributed to the towns to remove invasive green crabs, and those became one of the bait components. A lot of our whelk fishermen are using kind of a buffet of baits; a piece of horseshoe crab, some green crabs, a dogfish head, a herring. Some guys use mussels. We’ve sort of evolved. We think our use of horseshoe crabs is down because of that.

CHAIRMAN RHODES: Thank you, great time, very nonselective snails. Do any other people want to address? Seeing that I guess the Board at this point has to decide what sort of response. Our choices will be looking at the measures the two states have implemented, and follow up with them, or do we want to have something more statutory from the Board? I’m going to turn that over to the Board. Bob.

MR. ROBERT BALLOU: I’ll take the bait, Mr. Chair. I feel comfortable allowing New York and Connecticut initiate state action. Tracking that action, I think it is incumbent upon the Board to track that action, and to continue tracking the monitoring, trawl survey results to see if there is any cause and effect. I would be comfortable with that approach.

CHAIRMAN RHODES: Any further? Is everyone comfortable with that approach seeing no objection, Toni?

MS. TONI KERNS: There is no objection. I think that if we can make the timing work out we can provide that report to the Board when we do our annual compliance reports. I can work with Jim and Justin and Mike to see if that would line up well to having the annual tracking of those measures.

CHAIRMAN RHODES: Fantastic, thank you. Dan. MR. McKIERNAN: I have a question. Is it New York and Connecticut’s intent to have rules in place by next spring?

MR. GILMORE: Yes, New York is like I said. The bait bag issue is already in our rulemaking process, and then if we’re going to do the additional measures like I said we’re considering some sort of a seasonal closure. We have an order that we’re doing. We’re trying to do whelk and this at the same time. The whole idea would be to have this in place for the next year.

DR. DAVIS: I’m cautiously optimistic that Connecticut might be able to have rules in place by spring 2020 as well.

CHAIRMAN RHODES: Fantastic. Other responses from the report were Addendum VIII, which specifically deals with two points. One is accounting for the mortality from biomedical harvest, and then for possible female horseshoe crab harvest in Delaware Bay when certain triggers are hit. Does anyone have any feel for either of those at this point?

DR. MIKE SCHMIDTKE: We don’t need to necessarily address Addendum VIII within this meeting here. Like it’s on the screen it can be taken up at the 2019 meeting. But just to give some background on the points that Mr. Chair just brought up. For the incorporation of the
biomedical mortality there were a couple of different looks at this from the ARM Subcommittee.

Both indicated that whether biomedical mortality is incorporated or not incorporated into the ARM model, and regardless of which way it is incorporated of reducing the harvest packages, or adding it as a mortality term in the model itself it has not changed the results. It would not have changed any of the results from the harvest packages that were produced from that model.

In looking at kind of additional points from the stock assessment, in looking at how the Catch Survey Analysis population estimates are going to be incorporated into the ARM model, really if the best population estimate from that analysis is used in the ARM model, then that would incorporate biomedical information inherently from that estimate, because it would be there as part of the model.

One of the tricky parts, and one of the things that the ARM Subcommittee and Delaware Bay TC would need to discuss is how that information could be incorporated and conveyed in some way publicly, so that can be used in management. That is something that will be taken up at that September meeting. On the points of the harvest packages and the potential for female harvest in the Delaware Bay that is something that was looked at a few times in the interim as well.

The bottom line of is it that unless the horseshoe crab females or the red knots hit their population thresholds, no matter how many additional packages get put into the mix, there will be no female harvest unless those thresholds get exceeded. That is kind of the takeaways of some of the analysis that has been done since draft Addendum VIII was initiated, and then to the point that we currently are, since it was postponed and potentially being taken back up in October.

CHAIRMAN RHODES: Are there any questions? Is everyone comfortable with that? Stew.

MR. MICHELS: I’m sorry, so the question as to whether the catch survey model should be incorporated into the ARM process that’s going to happen in September?

DR. SCHMIDTKE: It’s kind of already a work in progress, like we’re planning the meeting right now, but the meeting will occur in September for the Subcommittee and the TC to discuss exactly how to do that and how to present that information for the Board.

CHAIRMAN RHODES: All right, is everyone comfortable with where we are right now, with the response and where we’re moving forward? Chris.

MR. WRIGHT: The peer review of the stock assessment, the Chair specifically mentioned that the bycatch really needs to be addressed. He suggested that the Board figure out a way of getting to that number. It seems like the significance that he stressed in his report was pretty alarming to me. I think we need to discuss that and just figure out, how do we get to those numbers so we can make better decisions in the future?

CHAIRMAN RHODES: Is the Board comfortable if we task the TC to look at that as they go over this data, and see if they can come up with a way of modeling that into it? Roy.

MR. ROY W. MILLER: Mr. Chairman, what would be the assignment, to examine the discard mortality rate or to suggest ways to reduce the discard mortality rate, which is it?

CHAIRMAN RHODES: I think at this point it’s going to be trying to get a number for the discard mortality rate, before we can affect that it would be having a number that they’re comfortable with that we can use for our analyses.

DR. SCHMIDTKE: I think one point that would need to be considered with that as far as like the timeline that the TC would be working with, and the possibility of completing the task is the access to the data. Somebody that is involved in the TC would need to be able to have access to the Northeast Fishery Observer Program data, because that was the primary data from which the discards were estimated in the assessment. One of the big difficulties for why those estimates were so broad and not as well defined as we maybe
would have liked them to be, was because there wasn’t anybody on the SAS that had ready access to those data.

DR. KRISTEN ANSTEAD: Just for some clarification. As part of the stock assessment we did use the Northeast Science Fishery Centers data to do bycatch estimates. There were a lot of comments during the peer review that they thought that some of those methods could be refined to be better, and that it would take some work and some collaboration with the Northeast Fishery Science Center.

I think certainly the TC could examine, maybe at a state level and make some suggestions about what they think the mortality rates are for each of the gears that could be encountering horseshoe crabs. But as far as the methods and the analysis of the data that is going to be a partnership really with the Northeast Fisheries Science Center to kind of work together to get that data to be in better shape for a similar analysis.

CHAIRMAN RHODES: Okay. Mike.

DR. MICHAEL ARMSTRONG: A question for Mike, or maybe Kristen, jumping to the last bullet. If we were to at some meeting go down the long term ARM review. My understanding is that all the fundamental parts of the ARM would be reassessed and open to change, including those thresholds that Mike, you just spoke about. We can have all the harvest packages we want, but based on where the thresholds are right now, you’re not going to open up female harvest. But if we go into the long term review, are those thresholds also open for reassessment?

DR. SCHMIDTKE: I need one second just to check the language of the Addendum and make sure.

MS. KERNS: If I remember correctly, and I did not go back and double check the document. But the thresholds in the document were based on some scientific information that was provided to us. Yes, we could go back and review the scientific information and change the thresholds, but it would still be based on scientific information.

I think whether or not those would change much is if the information that backed them changed. If there hasn’t been much change in the information that is the source for that threshold, then probably not much change would occur. But through the addendum process, if you change the entire ARM modeling, then we would go through the Addendum to do that. Does that make sense, Mike?

DR. ARMSTRONG: Yes, thanks. I’m just reflecting that those were created ten years ago or more, I think. Maybe some things have changed.

CHAIRMAN RHODES: Stew.

MR. MICHELS: I think among the things that have changed are some of the surveys that are being used to provide those estimates of just exactly where we are, relative to those utility functions. It might be a good time to take a shot at that long term ARM review.

CHAIRMAN RHODES: Well those are good points. I know the ARM Working Group is going to meet in September, and although they’re not set up to go along with that I’m sure the discussion will work towards that. There may be some clear answers for everybody.

OTHER BUSINESS

CHAIRMAN RHODES: Is there any other business to come before this Board? Yes, Stew.

MR. MICHELS: I’m sorry, are we going to charge the TC then with investigating some of these issues, like the bycatch and digging a little bit deeper into that? One of the issues I’m a little concerned with are the conversion factors that have been applied along the coast. If we could drill down on that I think it would be helpful.

CHAIRMAN RHODES: Those have all been noted and will be looked at. Any other business, all right and Mike has one more bit.

DR. SCHMIDTKE: Just giving the Board an update. When the initial agenda went out it did include an item for the FMP review, and we typically tried to do that within a meeting or two of when the
Compliance Reports are due. That is delayed this year. We have not received all of the Compliance Reports yet. But we are hoping to have all of the data that we need to conduct the FMP review in October. I just wanted to let the Board know.

ADJOURNMENT

CHAIRMAN RHODES: Great, if there is no other business, then we can stand adjourn, and we’re back on time. Thank you all.

(Whereupon the meeting adjourned at 3:30 o’clock p.m. on August 6, 2019)