

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
AMERICAN LOBSTER MANAGEMENT BOARD**

**The Roosevelt Hotel
New York, New York
October 22, 2018**

Approved February 5, 2019

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1. **Approval of Agenda** by Consent (Page 1).
2. **Approval of Proceedings of May 2018** by Consent (Page 1).
3. **Move that the states within the jurisdiction of ASMFC's Lobster Management Plan shall initiate a resolution to address the threats to Interstate commerce that is created by the use of lobster bait that is sourced from domestic and foreign locations that are known to harbor viral, bacterial, parasitic, and invasive agents that could pose a risk to lobster and other indigenous species. Such measures must ensure that the use of such baits will be prohibited by December, 2020** (Page 7). Motion by Pat Keliher; second by Tom Fote. Motion carried (Page 10).
4. **Move to postpone until the February, 2019 meeting to determine the compliance level for the states of Delaware and New York for the Jonah Crab FMP and send letters to the states to request they and send letters come back into compliance** (Page 15). Motion by Dan McKiernan; second by Ritchie White. Motion carried (Page 15).
5. **Move to approve the 2018 Lobster and Jonah Crab FMP Reviews, state compliance reports, and *de minimis* status for DE, MD, and VA for both American lobster and Jonah crab** (Page 15). Motion by David Borden; second by Dan McKiernan. Motion approved by consensus (Page 16).
6. **Move to approve Marc Palombo (MA) to the Jonah Crab Advisory Panel** (Page 36). Motion carried (Page 36).
7. **Motion to adjourn by Consent** (Page 37).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)	Maureen Davidson, NY, proxy for J. Gilmore (AA)
Steve Train, ME (GA)	Emerson Hasbrouck, NY (GA)
Sen. Brian Langley, ME (LA)	Michael Falk, NY, proxy for Sen. Boyle (LA)
Douglas Grout, NH (AA)	Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)
Sen. David Watters, NH (LA)	Joe Cimino, NJ, proxy for L. Herrighty (AA)
Dennis Abbott, NH, Legislative proxy	Tom Fote, NJ (GA)
G. Ritchie White, NH (GA)	Roy Miller, DE (GA)
Raymond Kane, MA (GA)	John Clark, DE, proxy for D. Saveikis (AA)
Dan McKiernan, MA, proxy for D. Pierce (AA)	Robert Brown, MD, proxy for R. Dize (GA)
Rep. Sarah Peake, MA (LA)	Mike Luisi, MD, proxy for D. Blazer (AA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Pat Geer, VA, proxy for S. Bowman (AA)
Jay McNamee, RI (AA)	Bryan Plumlee, VA (GA)
David Borden, RI (GA)	Peter Burns, NMFS
Sen. Craig Miner, CT (LA)	Allison Murphy, NMFS
Justin Davis, CT, proxy for P. Aarrestad (AA)	
Bill Hyatt, CT (GA)	

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

Ex-Officio Members

Staff

Robert Beal	Jessica Kuesel
Toni Kerns	Megan Ware

Guests

Colleen Coogan, NOAA

The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened in the Terrace Ballroom of the Roosevelt Hotel, New York, New York; Monday, October 22, 2018, and was called to order at 8:30 o'clock a.m. by Chairman Stephen Train.

CALL TO ORDER

CHAIRMAN STEPHEN TRAIN: We're about to start the American Lobster Management Board meeting. I'm your Chair; Stephen Train. This is the first meeting of our annual meeting; being hosted by the state of New York, very gracious hosts. I want to thank them for having us here. It's nice to be here while the Red Sox are in Boston hosting the LA Dodgers.

APPROVAL OF AGENDA

CHAIRMAN TRAIN: Does everybody have a copy of the agenda? Do we have any additions, deletions or corrections before we get started? Seeing none; we have consent. Go ahead, Tom.

MR. THOMAS P. FOTE: I think I just wanted to mention that this is the first meeting in many years that I don't see Lance sitting around at a Lobster Board meeting. Lance used to show up before he was even a Commissioner with Senator Doc Gunther; and basically do this. I would like to get a moment of silence to remember Lance Stewart, please.

CHAIRMAN TRAIN: We shall do that now. (Pause for moment of silence) Thank you for that Tom. Before we get started, I understand we have new Commissioners or proxies at the table. If you would like to raise your hand and introduce yourself, we'll start from this side and work down. First hand I see up, go ahead.

MR. WILLIAM HYATT: Bill Hyatt, new Governor's Commissioner from Connecticut. Prior to this I was Chief of Natural Resources for the state; retired October 1, got this the next day, looking forward to it.

CHAIRMAN TRAIN: It's good to see you, Bill, Mike.

MR. MICHAEL FALK: Mike Falk, the new proxy for Senator Boyle from New York. Welcome everybody. Some familiar faces, I was here a couple years back and I'll be here going forward. I look forward to working with everybody.

CHAIRMAN TRAIN: Go ahead.

MR. J.BRYAN PLUMLEE: Brian Plumlee from the state of Virginia; Governor's appointment. Previously I served on our Marine Resource Commission.

MR. ROBERT T. BROWN, SR.: Robert T. Brown, proxy for Russell Dize for the Governor of the state of Maryland. I'm also President of the Maryland Watermen's Association.

APPROVAL OF PROCEEDINGS

CHAIRMAN TRAIN: Okay that takes care of that. Back to our current agenda, everybody had a copy of the proceedings from the May meeting. Are there any additions, deletions or corrections? If not; I will take a motion, or we can approve them with consent. God ahead, Bob.

EXECUTIVE DIRECTOR ROBERT E. BEAL: Just a quick housekeeping note. The coffee service that is out in the hallway will not be available throughout all of our meetings all week long. New York is not the most economical place to meet. The coffee service will be available this morning until 10:15. Usually it will be two hours in the morning and two hours in the afternoon; so sort of plan on your caffeine needs accordingly, but it's out there until 10:15 this morning. Thanks, Steve.

CHAIRMAN TRAIN: Go ahead.

REPRESENTATIVE SARAH PEAKE: Unrelated to lobster, but a quick question. What's the access code to the Wi-Fi?

MS. MEGAN WARE: It's ASMFC2018.

PUBLIC COMMENT

CHAIRMAN TRAIN: Okay, the next item on the agenda is public comment. After public comment, we have none written down, if anyone would like to speak I will take them in a second. We do have a lengthy agenda. I am going to do my best to follow our normal policy; and allow you to speak only twice on an item, get what you want to say in, and we're going to move on.

If it's been said already, please just say I agree or I don't agree; and if you don't agree explain why. Public comment, is there anyone that didn't sign up that would like to speak? This might go faster than I thought; I doubt it.

DISCUSS PROTOCOL FOR IDENTIFYING BAIT SOURCES

CHAIRMAN TRAIN: Item Number 4; Discuss Protocol for Identifying Bait Sources. Mr. Keliher and Megan Ware, who would like to open, which one of you? Go ahead, Pat.

MR. PATRICK C. KELIHER: Megan, do you have the slideshow ready to go? As we all know, the Atlantic herring quotas have been cut drastically by the New England Fisheries Management Council. Back of the envelope would suggest that we're going to have in the state of Maine roughly a 50 million pound bait deficit going into next year's lobster season.

The state of Maine has been very proactive in regards to bait safety. I wanted to just take this moment to inform the board of what Maine is doing to ensure that we protect the health of the Gulf of Maine. Bait was being imported domestically and abroad; bringing with it the risk of viral agents.

After the industry brought a lot of these concerns to our attention, we started meeting with folks from the industry and from bait dealers; as well as folks from the University of Maine, to determine if there was anything that

we might be able to possibly do about bait safety within the Gulf of Maine. The overall consensus was that left unchecked imported bait was a vector that could endanger the lobster resource; and/or Maine's other wild and farmed resources. In 2012, DMR passed legislation giving the Commissioner authority to create approved and prohibited lists of freshwater and marine baits. In 2013, we adopted rules associated with that new statute. In Maine it is unlawful to sell bait that has not been reviewed or was on the prohibited list. Then following a second law change in 2017, it became unlawful to use such baits. Following an RFP, where we awarded the Kennebec River Bioscience a contract, we conducted a qualitative and quantitative data driven risk analysis to provide the results to DMR.

This was back in 2015. DMR then engaged the USDAs epidemiologist working in Maine; in the design of a risk evaluation process. Since the initial review, DMR has used a committee of governmental, university, and private industry folks to conduct risk assessments, and to provide recommendations to me as the Commissioner.

The perspective bait sources are assessed in regards to their risk for introduction to pathogens; using a multi-point assessment process, after which a recommendation to me is then made. I want to point out that we're not doing testing. We're just going through and doing a literature review of the bait; and from the area that it's coming from.

The risk factors that are utilized in the current assessment model, include climate match, species susceptibility, presence of susceptible species or hosts, the pathogen status, resource proximity, and migratory connectivity to the Gulf of Maine, and then bait treatment. Our existing process is challenging; but it's better than the alternative, which is introducing one of these vectors into the Gulf of Maine.

The review request comes from many sources. DMR has little ability to evaluate the feasibility

or the likelihood that it will be of interest to the fishery; an example of that the department could devote a lot of time to bait that the industry might not even want to use. We have to weigh that in the process as well. This is a significant time commitment to research often obscure species; and accessible information is often limited.

You have the species that comes from a third world country; where there is absolutely no data. What we do in that case is just put it on the prohibited list; if we can't find any information. The Review Committee is mainly composed of non DMR and non-state employees; who are providing the risk evaluation as a courtesy. That is another shortcoming; because we do have times when it's very hard to put the right folks together in the room.

MS. WARE: I'm going to take over here; and talk about some of the ways that the Board could move forward with this discussion, if that is the interest of this Board. One option for the Board to consider is developing a resolution. A resolution is an agreement by the Board outlining a policy statement. It can provide a recommended action for the states to enact.

But this would not be a compliance criterion; so it doesn't bind all the states to do this. Boards have done this in the past; and an example would be the Horseshoe Crab Board. They passed a resolution to ban the import and use of Asian horseshoe crabs as bait; so if people remember that that is kind of the same thread there.

Another option is for states to independently develop plans on bait protocols; and use the Commission as a forum. Here the Commission is really acting as a moderator. For better or for worse this would provide states a higher level of flexibility in developing these plans. Then a third option is to try and incorporate some sort of bait protocol into a management plan. Unfortunately, Amendment 3 is silent on bait; and it's not an adaptive management measure.

This means that it would require an amendment to include a bait protocol.

Importantly, rationale needs to be provided as to why this is an issue of concern impacting multiple states. If there is a biohazard in Maine, there has to be rationale for why that is an issue in New Jersey. Obviously amendments are a large amount of work; and generally over a long timeframe. But the benefit here is that it is binding; so it could be included as a compliance measure. With that Pat and I will take any questions.

CHAIRMAN TRAIN: Go ahead, Pat.

MR. KELIHER: I want to make it clear to the Board. There is a lot of work associated with this from a state perspective; I recognize that. I think we have a real threat here to the Gulf of Maine and beyond; with the use of baits that potentially have these pathogens associated with them. I'm not sure of the right path forward myself.

I wanted to start this conversation here today; because I can tell you for a fact that when we reject a load of bait in the state of Maine, they bring it to New Hampshire, they bring it to Massachusetts, they bring it to Canada. Maine is in the position now of going into this bait deficit; of being disadvantaged. I've already got a lot of pressure on me back home to rescind our rules; to try to find a way forward, and I don't think that is the right path forward.

CHAIRMAN TRAIN: Ritchie White.

MR. G. RITCHIE WHITE: I thank Pat for bringing this up. It clearly is and is going to be a large issue. Looking at this quickly, I guess I would be very skeptical on thinking that all the various states are going to implement this. I think the only way that we're going to get some control over this is to start an amendment. I think the amendment could be flexible enough, or create measures that are flexible enough so that we can react to changing conditions; so it doesn't

box us in too much. I would certainly support going forward with that.

CHAIRMAN TRAIN: Dan.

MR. DANIEL McKIERNAN: To follow up on Ritchie's comment. I have a question for Megan. How successful was the resolution on Asian horseshoe crabs? Did all the states adopt that? I know we did in Massachusetts.

MS. TONI KERNS: I believe that most of them did; but we could turn around and ask the states at the table here to see if anybody did not adopt the ban. It was a resolution, it was just a resolution; and I believe most states went home and adopted it, so New York did not.

MR. McKIERNAN: To follow up. Well, respecting all the work that Pat and his team have done, it would be a really light lift for us and New Hampshire to adopt that; at least cover the Gulf of Maine states. I would prefer the resolution approach; maybe just through peer pressure here among the Commission we can get that done.

CHAIRMAN TRAIN: Doug and then Eric.

MR. DOUGLAS E. GROUT: No matter which direction we go, I would like to get a little bit more information from your state or organization that is doing this as to what are the viruses and diseases that could be brought in by these baits. What is the vector that gets them into lobsters and other species? Is it just through the water? It would be very helpful. I'm not going to ask you to give it to me right now; because I'm sure that's not a detail you have. But I would really be interested in hearing what those things are.

MR. KELIHER: Is our bait list in the meeting materials? I believe it is.

MS. WARE: Yes it is.

MR. KELIHER: It should list the pathogens associated with them as well, Doug.

CHAIRMAN TRAIN: Are you done, Doug?

MR. GROUT: Well, going beyond that what is the vector that gets them in to the other resources? I did see a list of pathogens. You're talking about what was in and has that. Has there been evidence that that has gotten transferred in other places to important resources?

CHAIRMAN TRAIN: Go ahead, Eric.

MR. ERIC REID: I was going to ask if there was a list. Apparently I missed that page, so I appreciate that. Yes, it is a concern. Actually there are a lot of rules in the states already. You can't send river herring to Vermont without them being treated, and you can't send sea herring to Minnesota without them being brined for 60 days in some ungodly amount of salt.

There are some templates out there for what certain species have to be treated, whether they have pathogens in them or not, they can be treated to kill everything that exists in those fish. This is going to be a problem; because it's 50 million pounds. I don't know how many fisheries in the world will be able to supply bait in that volume; but there are some, as long as there is at least a preliminary list of stuff that is approved.

It's a big world; but it's very small when it comes to shipping fish from point A to point B; as long as the first Christopher Columbus container, the first one across is the only issue. After that you can open it up to a little bit more volume. That would be great, so a preferred list would be awesome to have.

CHAIRMAN TRAIN: Craig Miner.

SENATOR CRAIG A. MINER: I'm wondering whether Maine includes bait for crab or whelk; along with the bait that they are considering for lobster. It almost seems like this could be a step to another step; if we look at other baits

that are used. The other question I had was if the bait is rejected, and it is dumped. Isn't there then the same risk? I mean is it not that it's deposited in the Gulf of Maine, does it have the same risk as if it was used as bait?

CHAIRMAN TRAIN: Pat, do you want to answer that?

MR. KELIHER: The use of the bait. Senator, are you referring to as they use the bait and then dump the remaining bait over the side?

SENATOR MINER: No, I meant if it was rejected in the state of Maine and we passed some sort of resolution and it was here and had not been certified, and was really not marketable here in the United States, and maybe not even Canada. I can't imagine someone is going to take it back to another place.

It is going to be deposited somewhere; and once deposited, aren't the pathogens then released? If it's rejected, is it rejected and held. Then the other part of the question was we have other issues with regard to bait; such as fishing for crab and whelk. Are those a possible risk as well? Should this be broadened to include those other baits?

CHAIRMAN TRAIN: Go ahead, Pat.

MR. KELIHER: Under our rules it's under our lobster and crab regulations. I guess I would look at the Major, do those expand beyond though. I think it expands beyond those rules to any bait within the state of Maine, or any fishery. As far as dumping, Senator, there are very specific laws on our books; as far as disposal of any waste.

If somebody brought in loads, say they brought in two container loads of bait that was rejected; and they were found to have dumped it in any kind of water body. They would be under the immediate attention of the Department of Environmental Protection in the state of Maine. What we have found now that these rules are on the books is that before they transport bait,

they are doing a much better job now of communicating with us to make sure that it is on the allowed list or prohibited list.

But we still have had some instances where Asian carp from the Midwest, for example. We have very specific areas that we allow Asian carp to come in from; because the data is pretty clear that it's coming from a clean area, and we have good chain of custody. But there are other areas within the state of Illinois for example; that it is not from clean areas, and VHS is very prevalent, and we say no. We have indications now that those companies are just selling bait from those areas to our south and to our north.

CHAIRMAN TRAIN: Mike Luisi, did you have your hand up?

MR. MICHAEL LUISI: My question has to do with; I guess the scope of what we're talking about here. We're sitting here as the Lobster Board discussing the issue having to do with developing a policy, perhaps a resolution or a state action, maybe an amendment to address bait in the Gulf of Maine. Would there be any intention that the work done here could translate or could affect fisheries such as the blue crab fishery in Chesapeake Bay, and other fisheries where bait is being used in other areas that are not the focus at this point, or are we looking at actions that would be more focused to Gulf of Maine lobster fishing, and building on what Senator Miner talked about. Is the focus to the north to the Gulf of Maine, or are we talking about the entire range of lobster fishing and other bait fisheries throughout the entire Mid-Atlantic, New England area, even South Atlantic at that point?

CHAIRMAN TRAIN: Pat, do you want to answer that or do you want us to go to Toni?

MR. KELIHER: Well, I would be happy to give my perspective; it would be interesting to hear others. I think this is one of the most serious issues that we face as an organization; and if we are allowing the use of baits to come in that

potentially have the ability to transmit disease to our native fisheries, then that's problematic. With that said, I would think that we would at least start within the Gulf of Maine; but we should be looking coastwide in my mind.

CHAIRMAN TRAIN: Toni, anything else?

MS. KERNS: In terms of the scope of the fisheries. It depends on what the Board does; but the Commission would only be able to regulate species that it manages, so lobster, crab, maybe sea bass, and we don't have all of the pot fisheries, so slime eels, red crab, blue crab. Those would not be under the ASMFC jurisdiction, so that would not work there.

This would be, if you did an amendment that would be in the Commission's Lobster/Crab Plan. We would have to add this to the other species plans to impact them that way. I don't think we could do an overarching bait amendment. We would have to stick with changes species by species.

CHAIRMAN TRAIN: Dave Borden.

MR. DAVID V. BORDEN: I agree with Pat's sentiment on this. I think it's a serious issue and we need to get on with it. But the one thing I don't think we're all factoring in is the timing element of this. This is going to play out over a relatively short period of time; where there is going to be a high demand of bait.

There is a changing dynamic. When we start talking about developing an FMP requirement, and things like that it's going to take a lot of time to do that; public hearings and all the other things that are entailed in that. To me the way forward is to put together a work group. Use all the information that Maine has put together; in terms of developing this protocol.

They could meet and review that protocol; and see what else should be added to it in the near term. Then in the near term we get as many states as we can through their existing authority

to implement it; and then figure out what the long term, coastwide strategy is. I mean I read through the material. This is a really complicated issue; when you get into the nuts and bolts of it, and it's going to drag out in the process. I think we need a short term strategy and a longer term strategy.

CHAIRMAN TRAIN: Dennis Abbott and then Tom Fote. I haven't got anyone else on my list right now.

MR. DENNIS ABBOTT: I think I was going to say in simpler terms what Dave Borden just said. Dan McKiernan was more or less in favor of a resolution; and Ritchie would favor an amendment. I think the short term solution might be to have a resolution in the short term; and sit down and start working outlining an amendment to approach this problem.

CHAIRMAN TRAIN: Tom.

MR. FOTE: I agree with both Dave and Pat and Dennis. I mean you just think about the pandemic that we could basically let loose. We've seen with invasive species all the time. There are no natural predators or anything else to basically stop these species from spreading. What we also, if we bring in a disease that is not normally available, there is no immune systems to basically fight it off. The fish aren't adapted to that particular pathogen. Once you open up Pandora's Box we can wind up in real trouble; so we need to be proactive, not reactive.

CHAIRMAN TRAIN: Seeing no other hands; this is a possible action item. I would entertain a motion of some sort; if someone is willing. Pat.

MR. KELIHER: I put together a motion that I think is going to need some help with some words. It was a very quick attempt to deal with the resolution component of this. But I do agree with David and with Dennis that this is really a two-part process. I think try to deal with this through a resolution; and then potentially have a working group that really digs into the details, to report back possibly at the winter meeting.

I would move that the states within the jurisdiction of ASMFC's Lobster Management Plan shall initiate a voluntary measure to address the threats to Interstate commerce that is created by the use of lobster bait that is sourced from domestic and foreign locations that are known to harbor viral agents that could pose a risk to lobster and other indigenous species. Such measures must ensure that the use of such baits will be prohibited by December, 2020.

CHAIRMAN TRAIN: Do we have a second on the motion? Tom. Tom Fote seconded it. Discussion, go ahead.

MR. ADAM NOWALSKY: Where does this motion fall in the range of alternatives staff presented to us as potential actions? It is clearly not an amendment. I'm not sure it is a resolution; and if states are doing things voluntarily, what exactly does this motion constrain them to or require them to do, if they're not prohibited by December of 2020? Now I see it just became a resolution. I guess that answers that question; thank you.

MR. KELIHER: I accept that friendly amendment.

CHAIRMAN TRAIN: Thank you, Adam; you're pretty good at holding us to the fire on what we're supposed to be doing on procedure. Is there anybody else with comments or questions? Go ahead.

MR. JOE CIMINO: I just had a question. I support the idea of a working group; but also curious where law enforcement comes in on this. You explained that a lot of work went into the literature reviews and the considerations. I saw a lot of exotic species on that list; and I'm just curious on how that's going to be handled.

MR. KELIHER: Thanks for that question Joe; I think that's an important one. Because this is on a prohibited list, we have a prohibited and an allowed list. When marine patrol goes in and does inspections of bait dealerships in Maine, and they see a species. They can then cross

reference the list that's referenced in Rule. We've had several occasions where bait being brought in from out of state; in fact I was in the Major's office when an officer called him from the road.

He had just stopped a truck on the highway that had a load of Asian carp. We were able to then look at that; look at the bill of lading, could see the chain of custody, and that it came from the proper areas, and who was importing it. Then we knew that that was actual legal bait. From an enforcement standpoint, I think what we have on the ground in the state of Maine is working for us; and because it's associated with rules there are penalties associated with it.

CHAIRMAN TRAIN: Are you satisfied? Maureen.

MS. MAUREEN DAVIDSON: Pat, I wanted to ask, why did you limit it only to viral agents? There are also bacterial agents that might also pose a threat to lobsters; as well as attached organisms, you know parasitic that might be attached to the animals that we would be bringing into the harbor.

MR. KELIHER: Maureen, I thank you for that. As I said, this was a quick attempt to kind of pull this together. But I think the addition of bacterial and other parasitic, as well as potentially invasives; you know other invasive species associated with it could be included.

CHAIRMAN TRAIN: Eric.

MR. REID: At the risk of opening up a giant can of worms. I don't know whether or not the FDA should be involved as well; because food can be used as bait just as easily, probably more easily because of what it is. But you want to put some horse power, the FDA would be somebody to involve as well.

CHAIRMAN TRAIN: Go ahead, Pat.

MR. KELIHER: Eric, we quite often will have companies say that this is food grade product; approved by the FDA. But it does not mean

that there is not a potential vector associated with that bait; because of the areas that it comes from. It might be food grade; but it still might not be allowed. We have had contacts with the FDA in the state of Maine. But I think to your point; it may be if we did form a working group, finish this component of it. If we had a working group I think that should be part of the conversation.

CHAIRMAN TRAIN: Mike Luisi.

MR. LUISI: While I completely understand the threat and I'm absolutely 100 percent supportive of moving forward to put something in place to address the issue. My concern has to do with what a state like Maryland, who is within the jurisdiction of ASMFC lobster management plan, what action we would need to take in order to be compliant at the end of the day.

Resources in our state are minimal; and our lobster fishery is very small. I just don't know where we end up at the end of the day; having to show some action. If there is a compliance piece to this, I would like to understand what that compliance would be; so that when we report to the Board in 2020 that we'll be able to either meet that compliance mandate, or have to explain why we may not have the resources to address what is being discussed here today.

MS. WARE: Mike, for a resolution it's a recommended action; but it's not a compliance criteria, so Maryland would not be found out of compliance via the FMP if you do not adopt whatever the resolution recommends.

MR. LUISI: Thank you.

CHAIRMAN TRAIN: Toni, did you have something to add?

MS. KERNS: I just want to get some direction from the Board. If this motion does pass, would the Board want to see a resolution that has been drafted at Policy Board? That would be more of a general resolution; it wouldn't be

very specific, to give the states some flexibility to work around what their needs would be, or we could develop a working group that would put together a much more specific resolution. I don't know what you're looking for that we could then approve; either an e-mail vote or we could hold off until February; depending on the pleasure of the Board.

CHAIRMAN TRAIN: Is the will of the Board for this to go to the Policy Board? Can I get nods? I'm seeing noes. Go ahead, Doug.

MR. GROUT: Yes, I had envisioned that this would be something that there would be a working group that would bring back not only a resolution, but again more information on this topic. I mean they talk about in the tables here, they talk about these species have exotic viruses in there. I still would like to get a handle on how these things are transferred.

Are they transferred via a lobster eating the bait; or is it a waterborne transmission? What are the viruses and what are their effects on resources? Again, it sounds like the state of Maine has some experts that could be able to provide that kind of information to us. My intent was I was hoping that we would have something for the February meeting.

CHAIRMAN TRAIN: Doug, do you feel the motion currently has what you would like on it; the way it's worded and the way we're going to bring it forward?

MR. GROUT: Yes.

CHAIRMAN TRAIN: Anybody else? Go ahead, Adam.

MR. NOWALSKY: The motion as it is written would direct states to look at prohibiting known dangers. From the discussion I've heard; and the fact that Maine has gone forward with a prohibited and an allowed list, suggests to me that we may have concerns not just about what we know are a problem, but also the unknown.

If somebody wants to bring Species X from some country in that we know nothing about.

We don't know that it's known to harbor these viral, bacterial, parasitic, invasive agents. But we don't know it's safe either. Is the actual intent of this motion, and would it be better to flip this around? Instead of prohibiting what we know to be dangerous, are we really more interested in allowing what we know to be safe? I would pose that to the Board and the makers of the motion what the direction really is that we're looking for here.

CHAIRMAN TRAIN: I'm going to put that on you, Pat.

MR. KELIHER: I think this is an incredibly complex issue; and the way that we've dealt with it in Maine, the reason we talk about prohibited and allowed is because of the way the law is written. All marine baits are allowed; unless we prohibit them, and all freshwater bait is prohibited, unless we allow them. That is the way the law was crafted.

But to your point, I think you're correct that if we said that let's just go with what's safe. Let's allow what we know is safe. Then there is enough information out there that might lead some people to say I'm just going to take no risk, and I'm only going to allow baits from the waters from which we are going to use them in. Because of the issue that Doug is bringing up is a very good one. The vector in how they are transmitted becomes very complicated. VHS might be a simple one; but white spot disease could be a much more direct impact directly to lobsters and crabs. Because of the complexity of it, I'm not sure there is an easy way to state it associated with this motion. I think the complexities need to come out in a working group; to figure out if we need to revise an approach going forward, be it through a stronger resolution or be it through an amendment.

CHAIRMAN TRAIN: Is there anybody else? Go ahead.

MR. JUSTIN DAVIS: To build on what Pat's saying. I would just hope that the outcome of this process would be to create something like a working group that could create a set of criteria to guide states on how to handle applications for new bait species; because I think it would be easy enough to start with the list in the good work that Maine has done for approved and non-approved species. But I think what we need to really be concerned about are those species that we're not even thinking about yet.

We're likely to see some creative ideas on what to use for bait for lobster; given the bait deficit. If each state is operating independently and using its own decision making process; we could end up with sort of piecemeal approvals across the board, some states deciding a certain species is okay, others not. I think one of the real useful things that could come out of this process is to create a working group that is going to sort of provide guidance to all the states on how to handle the decision making process.

CHAIRMAN TRAIN: I have a question or suggestion perhaps. If we currently have, at least Maine, there may be some other states that are doing some sort of testing. While this is going on, should we somehow share the lists from the states that have approved or non-approved baits between them; in case they want to work within themselves, and do we need to add this, anybody? Go ahead, Ritchie White.

MR. WHITE: Not to what you just asked. I would think the key to this is to have the person bringing the bait in to prove that it's safe, as opposed to the states proving that it's not. I think that the states, as Pat has said, are clearly not going to have the resources to test and research every single possible bait that could come from around the world. I think it's up to them; and if they can't prove, if there is not sufficient evidence, then you wouldn't allow it.

CHAIRMAN TRAIN: I don't see a lot of hands up. Are we ready to vote on this, because we are

running up against our timeline? **I guess we're going to vote on this. All in favor of the motion get your right hands up, please. We're going to get a count. All opposed, abstentions, null votes, the motion carries 11 to 0 to 0 to 0.** The next item on our agenda, I'm sorry what? Two people over where? Go ahead, David.

MR. BORDEN: This is a really quick point. We had about eight people around the table that talked about forming a work group. I think personally that this is fine. It doesn't advance the dialogue. What we really need is we need to form a small working group; so I would propose that we form a working group of Maine, Massachusetts and New Hampshire, and any other states that want to volunteer for it, and bring a recommendation back to the Board at the winter meeting.

CHAIRMAN TRAIN: Do we have at least affirmation from those three states that we can get that done? Okay, I see nods from all three; so we've got that on the record, thank you, David. There was another hand up. Go ahead.

MR. RAYMOND W. KANE: Before me I see a motion for resolution. Getting the working group together, is this Commission thinking about an amendment down the road that's been discussed at the table long term?

CHAIRMAN TRAIN: The question was; are we thinking about an amendment after the resolution and working group?

MR. KANE: Yes, Mr. Chairman, down the road. There was talk about short term and long term.

CHAIRMAN TRAIN: Go ahead, Bob. I think that's where we're going; but I'll let Bob answer.

EXECUTIVE DIRECTOR BEAL: My interpretation of the conversation this morning was that's part of the output of the working group. You know have them pull together a resolution in the short term; and then based on the work that they did and the research that they did to

develop the resolution, they should make a recommendation to the Board whether an amendment is the best next long term step or not.

CONSIDER APPROVAL OF THE 2018 AMERICAN LOBSTER AND JONAH CRAB FMP REVIEW AND STATE COMPLIANCE REPORTS

CHAIRMAN TRAIN: Seeing no more hands; we'll move on to the next item on the agenda; Approval of the 2018 American Lobster and Jonah Crab FMP Review and the State Compliance Reports. Megan is going to present.

MS. WARE: We're going to start with the Lobster 2018 FMP Review. First we'll look at commercial landings. As everyone knows, the lobster fishery has seen incredible expansion and landings over the last 40 years. In 2017 coastwide commercial landings were 137 million pounds; which is a decrease from the record high of 159 million pounds in 2016.

The largest contributors to the 2017 fishery were Maine, which is the orange line on the graph, at 82 percent, and Massachusetts, which is the gray line on the graph with 12 percent. The ex-vessel value for lobster landings in 2017 was just over 565 million. Moving on to our monitoring requirements, I'm going to start with the trawl surveys.

I have the Maine/New Hampshire Trawl Survey on the left; and then since we're in New York, I put up the Long Island Sound Trawl Survey. For Maine and New Hampshire, the spring survey abundance indices are on the top. They did decrease in 2017; but are still well above the time series mean.

The same for the fall survey, those abundance indices also decreased in 2017. For the Long Island Sound Survey, there have been considerable declines in both the spring and the fall survey indices over time. Spring, 2017 lobster abundance index was the lowest in the time series; and similar to the 2013 to 2016 indices.

Then for the fall, both 2016 and 2017 index values ranked lowest in the time series. Next we have the ventless trap surveys; so on the left here is the Maine ventless trap survey, and then on the right is the Massachusetts ventless trap survey, but just the Gulf of Maine portion. For Maine there was a slight decrease in the number of sublegal lobsters and legal lobster caught in 2017; compared to 2016.

Then in the Gulf of Maine for Massachusetts, the mean CPUE of sublegal lobsters, which is the top line on that right hand graph, was slightly lower in 2017 than both 2015 and 2016. That bottom line is the mean catch-per-trap of legal sized lobster and in 2017 that was just above the time series average. Then finally for monitoring, we have our young-of-year surveys.

We have the Maine young-of-year survey on the left; and Massachusetts on the right. In Maine the settlement survey indices in 2017 continue to be below the series average for each region. For Massachusetts the density of young-of-year lobsters remained low; compared to the time series average in all sampling locations except for Cape Ann, which is the dark blue line, and you can see it actually increased in both 2016 and 2017.

In Area 1 there were no young-of-year lobsters found in the Boston sampling location, and in Area 2 there were no young-of-year lobsters found in the Buzzards Bay and Vineyard Sound sampling locations. Our next benchmark stock assessment is scheduled for August, 2020; so I thought I would just give an update on the progress of that assessment. We had a data workshop that occurred this spring; and then our first assessment workshop is going to be for the end of January of 2019. This means that we'll have a second assessment workshop in the fall of 2019; and then our peer review would be sometime in late spring, early summer of 2020. So far the discussion of the TC and the Stock Assessment Subcommittee has focused on data collection; and the potential standardization of indices, as well as any changes in growth and maturity and how to

incorporate those changes into the stock assessment.

For our status of management, I just wanted to provide an update at the Board level on Addendum XXVI, wince we did have an e-mail vote on that a few weeks ago. The original implementation deadline was January 1, 2019; but that implementation deadline was delayed to January 1, 2020 for two sections of the addendum, and those are Sections 3.1.3 Harvester Reporting Data Components, and 3.1.4 Spatial Resolution of Harvester Data.

This was due to concerns from states about the ability to meet the implementation deadline. I do want to be clear that this does not delay the implementation of other components of the Addendum; so it still means that the fishery independent and dependent provisions will be implemented in 2019, and the start of the five-year timeline for 100 percent harvester reporting is not delayed.

Looking at state compliance, we had two states which did not conduct any sea sampling; and that was Rhode Island and Connecticut. However, both states did note both staffing and budget constraints; and otherwise the states are in compliance with the fishery management program. For de minimis it is defined as commercial landings in the two most recent years of data; which do not exceed an average of 40,000 pounds.

We had requests from Delaware, Maryland, and Virginia, and all three states qualify. Then just to wrap up some of the PRT recommendations that were discussed on our call. The PRT does recommend the Board approve de minimis requests. We did talk about expected changes in bait availability; and that the Board considers bait sources, which it sounds like this Board is going to do.

The PRT recommended research is conducted on lobster growth, maturity and connectivity. The PRT recommended coastwide consideration be given to the transfer of tags between traps;

to eliminate the issuance of exchange tags. Then finally, the PRT recommended the Board investigate the best way to quantify effort in the lobster fishery. With that I will take any questions.

CHAIRMAN TRAIN: Any questions for Megan? It must have been a heck of a presentation. Are there comments to Megan? Go ahead, David.

MR. BORDEN: Not to put this off on the side, but I'm just curious. The PRT recommendations on data collection, how does that link up with what NOAA is doing, relative to the data collection program, Megan? Do you know where, or maybe Pete Burns or someone from NOAA can comment on that? In other words, there are comments on improving data collection in various components of both lobster and Jonah crab, and how does that link up with what's going on in the federal process?

MS. WARE: Do you mean sea sampling requirements and observer data?

MR. BORDEN: Yes.

MS. WARE: I would have to maybe toss that to the federal partners over there.

MR. BORDEN: In the interest of time, Mr. Chairman, let me talk to Pete Burns during a break.

CHAIRMAN TRAIN: Okay. Dan, do you have something?

MR. MCKIERNAN: Yes, I'll be quick. I think I can help David out here. One of the challenges we had in looking at the southern New England fishery performance, relative to the effects of trap reductions, is to see if the number of traps was reduced or the number of trap hauls changed. One of the findings was it appeared that in some cases the number of trap hauls increased with shorter soaks.

We felt that it was necessary to try to tease out the effort data for vessels that are clearly

targeting Jonah crabs. It might be on a shorter soak, and try to come forward to explain the performance of the trap fishing in southern New England that we weren't necessarily circumventing the objectives of the management plan to reduce effort on lobsters; where it appeared that there was more effort by more trap hauls. I think that's what we're talking about here.

CHAIRMAN TRAIN: Go ahead, David.

MR. BORDEN: Just for everyone's edification; since I work for the offshore industry. The ideal soak time for Jonah crabs is about two days. In other words, you can haul the gear almost as much as you can get back to it, in the type of weather we've been having. If you comingle and don't have a way to separate that type of information in the data, then it confuses all the calculations you make from the data. Dan's point and the PRTs point is correct. I'm just wondering how we do that; how we separate that. I'll talk to Pete Burns directly.

CHAIRMAN TRAIN: I don't want to shut you out, Peter, if you had something to say. If not, we can let you guys have that side conversation.

MR. PETER BURNS: I'll just respond and say that you know we're looking at very strongly at the recommendations that Addendum XXVI provides; and we're ready to move forward on addressing the harvester reporting requirements. Some of the other requirements I think we're going to need a little bit more time for us to work with the Commission to develop those. But I'm happy to speak with David and answer any specific questions he may have.

CHAIRMAN TRAIN: Is there anything else, Doug Grout.

MR. GROUT: Just a quick question for Megan. In the Plan Review, is there any discussion or research recommendations in the Plan Review about climate change, ocean temperatures and

ocean acidifications effect on some of our young-of-the year indices?

MS. WARE: I don't remember that specifically on the PRT call; but there have been certainly discussions about that at the TC level, and with other groups. I think it's an ongoing question.

CHAIRMAN TRAIN: Okay, we're on to our next agenda item. Oh, you're still doing Jonah Crab; well go ahead then.

MS. WARE: We have two species. All right, this is now the Jonah Crab 2018 FMP Review. Again, looking at commercial landings to start, in 2017 we had 17.4 million pounds of Jonah crab landed along the Atlantic coast, and that is now our new highest record for Jonah crab. This represented 16.3 million in ex-vessel value.

The states of Massachusetts, which is that blue line, were responsible for 66 percent of landings, followed by Rhode Island, which is the yellow line at 23 percent. The states are asked to extend their sampling programs to Jonah crab; and this is the Massachusetts Trawl Survey, but all of the other states information is in the FMP Review. All of the 2017 data points for Massachusetts were above the time series medians, and they were trending upward based on the fitted generalized additive model.

In terms of status of the stock, the status is relatively unknown; and there has been no coastwide stock assessment. There are several ongoing studies related to Jonah crab; to try and obtain the information needed to conduct a stock assessment, and that includes looking at the maturity of males versus females, looking at migration patterns, looking at the mortality associated with declawing, growth per molt, as well as reproductive biology.

For our status of management, I just wanted to briefly review our regulations under the fishery management plan that primarily focuses on permitting; and who is allowed to participate in the fishery. It sets the 4.7 inch minimum carapace width with no tolerance. There is also

a prohibition on the retention of egg bearing females, and a 50 whole crab recreational limit.

Then in Addendum 1 there is a thousand crab bycatch limit; followed by Addendum II, which is a coastwide standard for claw harvest, and then Addendum III, which was the reporting addendum with lobster. We have two states which have not implemented the provisions of the Jonah crab FMP and associated addenda. I'm just going to read the text on the screen. New York has not implemented the full suite of measures in the FMP Addenda 1 or Addendum II.

New York legislation currently prohibits the harvest of female crabs with eggs; and the recreational harvest is limited to 50 crabs. The 4.75 inch minimum carapace width and the thousand crab bycatch limit for non-trap and non-lobster trap gear has not been implemented. In last year's compliance report it was expected that regulations would be implemented by early 2018. In addition, Delaware has not yet implemented measures in the FMP Addendum I and Addendum II.

Promulgation of Delaware's Jonah crab regulations have to go through the state legislature; and this has not yet occurred. In last year's Compliance Report it was expected that regulations would be implemented by early 2018. For de minimis, states may qualify if for the three preceding years their average commercial landings constitute less than 1 percent of average coastwide commercial catch. We had applications by Delaware, Maryland, and Virginia, and all three states do meet this requirement. In terms of PRT recommendations, the PRT did raise concerns about the lack of Jonah crab regulations in Delaware and New York; particularly in regards to the lack of minimum carapace width and the commercial bycatch limit.

Similar issues were raised in the 2017 Compliance Reports; and have not been addressed within the last year. In addition the PRT recommends the Board approve de minimis

requests. It recommends that jurisdictions with crab only fishermen report on their collective effort; and that there is continued research on Jonah crab species, so that a coastwide stock assessment can be completed. With that we'll take any questions.

CHAIRMAN TRAIN: Questions for Megan. Go ahead, Pat.

MR. KELIHER: Does New York and Delaware have plans to come into compliance?

CHAIRMAN TRAIN: Go ahead.

MS. DAVIDSON: Some of the changes require legislative change; which we don't have any control of. We can change our regulations; but some of the aspects of the crab part we have to ask the legislature to change. We are waiting for them to make the change. They don't seem to be in a hurry.

CHAIRMAN TRAIN: John.

MR. JOHN CLARK: Being in compliance is always the plan, Pat. But we have an extremely constipated regulatory process right now within the department. We're hoping to get things moving again shortly; but it is embarrassing.

CHAIRMAN TRAIN: Are you satisfied with the answer, Pat?

MR. KELIHER: Because the good state of Delaware saved the life of a woodcock trapped in the lobby of the hotel this morning; I'm willing to forgive Delaware. New York, because I had to come to New York City for the meeting is questionable; but I think I could probably live with it for a little while.

CHAIRMAN TRAIN: New York City was kind enough to have the woodcock in the hotel for you. Is there anything else on this topic, not woodcocks? Doug.

MR. GROUT: Just a clarification for the state of New York. Have you requested the legislation

to ask for a senator or a representative to put that kind of legislation in place?

MS. DAVIDSON: We have a means of introducing legislation through the Department of Environmental Conservation; and so we prepared a package and we have sent it forward, but it has not been picked up.

MR. GROUT: Let us know if you need an out of compliance recommendation to move it forward, okay.

CHAIRMAN TRAIN: Dan.

MR. McKIERNAN: Shall we make a motion to postpone until February any consideration of a non-compliance finding?

CHAIRMAN TRAIN: I'll entertain that motion and see if we can get a second.

MR. McKIERNAN: Want me to make the motion? **Move to postpone until the February, 2019 meeting to determine the compliance level for the states of Delaware and New York for the Jonah Crab management plan.**

CHAIRMAN TRAIN: Second by Ritchie. Maybe John, that will grease the wheels for you a little bit, further discussion, Bob.

EXECUTIVE DIRECTOR BEAL: You know going down this road is consistent with how the Menhaden Board handled the situation in Virginia; allowing the legislature a little bit more time to take action. But the one thing that happened in the menhaden situation – and sorry to bring up menhaden, we thought we'd make it through a meeting without that – was that in the interim the Commission sent a letter to the affected state.

We were notifying them that the Commission is monitoring compliance and requesting that the state come back into compliance by implementing the requirements of the FMP. It doesn't say directly in the motion here; but it may be for consistency it may be good to send a

letter to Delaware and New York, letting them know that this motion is out there and the Commission is monitoring compliance.

CHAIRMAN TRAIN: Would the maker of the motion like to amend that and include the letter?

MR. MCKIERNAN: Certainly.

CHAIRMAN TRAIN: Second, okay that will be done. Is there any further discussion on the motion? We'll get it up with the letter included. The seconder was Ritchie White. John Clark, your hand was up.

MR. CLARK: Yes thanks, Mr. Chair it's changed now, just when it said legislature. It doesn't involve the legislature in Delaware, so it's out of there.

CHAIRMAN TRAIN: Okay, I would like to move on with this if we can. Is there any further discussion? Okay is there any opposition to the motion that is on the screen; is that consensus? I'm sorry, what do we got? Go ahead.

MS. ALLISON MURPHY: As is our tradition with compliance decisions, I'll be abstaining from any vote on this.

CHAIRMAN TRAIN: **To make this clear, all in favor of the motion please raise your right hand, opposed, we have abstentions, null votes. The motion carries, 10, 0, 1, and 0.** Correct?

REVIEW NOAA TECHNICAL MEMORANDUM ON NORTH ATLANTIC RIGHT WHALE STATUS AND RECOVERY CHALLENGES

CHAIRMAN TRAIN: The next item on the agenda is Review NOAA Technical Memorandum on North Atlantic Right Whale Status and Recovery Challenges. I'll give you guys a heads up. At the end of this item I'm going to take a little biologic break for everybody. I've got hands up, just a second. Go ahead, Toni.

MS. KERNS: We just need to approve the FMP Reviews and the de minimis status. We didn't do that.

CHAIRMAN TRAIN: **Can we get a motion to approve the FMPs that were presented? I've got one from Tom Fote, second?**

MR. EMERSON HASBROUCK: We also need to do the lobster plan as well. I don't think we voted on that.

MS. KERNS: You can do them together; as long as we include those de minimis requests as well.

CHAIRMAN TRAIN: Emerson, you seconded that is that correct?

MR. HASBROUCK: Yes.

CHAIRMAN TRAIN: Ritchie, you have discussion?

MR. WHITE: Wouldn't this need to take out Delaware and New York; because we've already passed a motion delaying that until February, I believe?

CHAIRMAN TRAIN: Bob.

EXECUTIVE DIRECTOR BEAL: I don't think they need to be pulled out here; and I think Delaware still qualifies for de minimis on both of these, given their landings. Given the previous motion, it is clear that the Board's intent is to follow up on compliance.

CHAIRMAN TRAIN: Are you satisfied, Ritchie? Anything else, okay let's do a vote. Are you voting or do you have a question? **All in favor of the motion please raise your right hand, opposed; I have no opposition, abstentions, and null votes. The motion carries 11, 0, 0, and 0.** Before I say next item on the agenda, are we forgetting anything? The next item on the agenda, which I've already presented, and I will call for a break after this, because we have still a long morning.

**REPORT ON THE OCTOBER 2018
ATLANTIC LARGE WHALE TAKE REDUCTION
TEAM MEETING**

MS. COLLEEN COOGAN: My name is Colleen Coogan; I'm the new Marine Mammal Take Reduction Team Coordinator, and I'm presenting for Sean Hayes and his team at the Northeast Fisheries Science Center. They prepared this text memo really at our request; at the Greater Atlantic Regional Offices request, to make sure that we had a summary of the latest information on the status of Right Whales for our October Take Reduction Team meeting. A lot of people have heard about the dramatic mortalities; primarily in Canada, in 2017. But also in 2017 a paper was published, showing that Right Whale declined again in about 2010. We began actively managing Right Whales in about 1990; and for the first two decades we could see incremental rises in the population, partly due to the efforts of the Take Reduction Team, as well as some ship strike reduction measures that were implemented.

Those measures didn't appear to be enough after 2010; and current estimates of Right Whales are probably below 440 animals, after peak of about 480 in 2010. Only 100 of these animals are likely adult females, so capable of reproducing. I need to update this slide. There are now 20 known dead; because we had a mortality reported last week, since 2017.

There were 12 in Canada and there have been 8 in the U.S. since then. There were only 5 calves in 2017; and no calves born in 2018, 85 percent of the Right Whales, the entire population have scars indicative of entanglement, at least one entanglement during their life. The message really we were trying to get across to the team was that the population is in trouble; and that one of the primary human cause problems for Right Whales right now is entanglement.

What happened after 2010? One clear problem for them is the ecosystem shift. As a lot of you know the Gulf of Maine, temperatures are rising faster than 99 percent of the world's oceans.

We believe there are also fishery behavioral changes; based in part on anecdotal information about things like gear getting stronger, and lobster and fisheries moving offshore. We know there have been whale behavioral changes as well. I am often accused of being too loud; because I am from New York.

The environmental changes that caused the whales to modify their behavior as well have increased their exposure to a number of threats. Potentially changing U.S. fisheries as well as more exposure to Canadian fisheries, which until recently were unregulated, also Canadian vessel traffic, particularly in the Gulf of St. Lawrence, where the whales are spending more of their summer feeding period.

Gulf of St. Lawrence is the major ocean highway for the Great Lakes; so vessel traffic there is significant. As a result of this there has been an increase in serious injuries and mortalities. The rate of serious injuries and mortalities has gone up since 2010. We believe there are sub-lethal entanglement costs; so that whales are, particularly the females are losing a lot of their energy that would be used for reproduction, and instead they're dealing with entanglements.

Possibly not being killed or even being seriously injured by them, but for some period of time spending more energy overcoming entanglements. There is potentially reduced food out in the environment right now. We do know the food has shifted; which is why the whales are in the Gulf of St. Lawrence, instead of previously the Bay of Fundy and other areas in the Gulf of Maine.

As a result of their increased migration to the Gulf of St. Lawrence, their increased migration and distance energetic cost of about 750 miles. Two through four are elements that reduce the ability for the females to calve. We do see reduced calving. Up until a few years ago the calving interval was about four to five years. It's now extended to about 10 years. This is a pretty basic math problem. If more animals die

in a year than are born, the species declines. Demography is all about deaths and births. When looking at the sources of serious injury or mortality, what we're showing on this graph the top blue line is the Right Whale population numbers. The black line is the entanglement per capita serious injury mortality that has been documented.

The red dotted line is the ship strike serious injury and mortality that has been documented. These are both considered to be minimal numbers; because this is what's documented, what we actually observe. The rate of ship strikes appears to have stayed somewhat stable; about 3 percent a year.

But serious injury and mortality caused by entanglements has gone up slowly over the same period. As I discuss, there has also been a change in the distribution of the whales. The basic Right Whale life history is they breed off of the calving grounds of Georgia and Florida. Then they head north to feeding grounds where they spend the summer months.

Previously those feeding grounds were primarily in the Gulf of Maine; including the Great South Channel as well, the Cape Cod Bay. We used to see them in the Lower Bay of Fundy in the summer and fall; and southwest of Scotian Shelf as well. For the females, they spend a year of pregnancy; they spend a year of lactation raising their young, and then about two years to rebuild those resources.

It was believed that the Gulf of Maine feeding grounds were the right place for them to do that. When there isn't enough food or there are other issues that cause problems for them, they delay their reproduction. Starting around 2010, it was obvious the whales weren't going to where they had traditionally been going.

There were some theories that they were going somewhere else altogether; a theory that Sean calls North Atlantic Right Whale Atlantis. That would imply a one-way trip; some place where the whales were going, foraging, and/or

breeding. We weren't seeing them on the calving grounds or on the traditional feeding grounds in the same numbers.

But that doesn't appear to be what we're seeing right now. Rather, we are seeing a large number of whales in the Gulf of St. Lawrence, in the summer and early fall months. I think this summer up to about a third of the population was seen there. Some of those were the same ones that had been seen previously in the Bay of Fundy.

That work hasn't been finished yet; but what the folks in the aerial surveys were saying was that they were recognizing some of those whales as being from the whales that traditionally were going to the Bay of Fundy. That again is an additional 750 mile migration; taking more resources from the whales.

Additionally, we know that over the period that lobstering has been occurring, ropes have gotten stronger. Of course, fishermen are going to use stronger ropes; it's safer. If the gear is going offshore in areas of high tides or high currents, the stronger rope is safer for the fishermen and also allows them to retain their catch. But with these stronger ropes, there appears to be a linear or very similar increase in the severity of the injuries and the mortalities that are seen. We're seeing entanglements everywhere. This is not intended to show anything except that in the 10 percent of the times that we know where the whales picked up the gear, we're seeing that entanglements can occur anywhere. It can occur nearshore, it can occur far offshore. We've seen the whales taken in the Gulf of St. Lawrence; as well as out near the Hague Line in the nearshore waters.

Again, this is about 10 percent of all entanglements observed. We've seen about 111 Right Whale entanglements; where we've actually documented gear on the whales since 1997, and this represents I think 12 entanglement events. Just to say that the whales are picking up the gear where the gear is, there is no one place where whales are vulnerable to the gear.

Sean likens this to a lottery; in a bad way. New scars are seen in about 100 whales every year; about a quarter of the animals. If there are about a million lines out there; which are what some estimates have indicated, then any line has a one in 10,000 chance of encountering a whale or being encountered by a whale.

The actual chance of any fisherman catching a whale is very low; however, for the whale they have a one in four chance of encountering a line that causes an entanglement, and at least a new scar. This slide is attempting to show what that risk of entanglement looks like over a number of years. The gray box shows what had been the calving intervals for Right Whales.

They were calving every four to five year; and in any of those years they had maybe a 25 percent chance of encountering a line. But over those four years that probability increased. Now the interval has been extended to 10 years. Females have about a 5 percent chance of not encountering a line in that 10 year period.

Then again, any of those entanglements that are severe or carried by the whale for some period of time, takes energy from the whale; especially the females that takes away from breeding. Peter Corkeron has recently published a paper; or it's at least in press right now, on what recovery could look like for the Right Whale population, by comparing the North Atlantic Right Whale to the Right Whales in the southern hemisphere.

If Right Whales haven't aged long enough to die, these whales could probably get to be over 100 years old. If they're living in area where there are no ship strike or entanglements, if there is enough food for them to be fat and happy, and if calving rates approach 5 to 7 percent and hundreds were born a year.

The growth curves would look something like this; as they do in the southern hemisphere. The lower red line is the North Atlantic Right Whale's growth curve; the number of calves per year, actually. As you can see, although there are up and down years, it's a relatively low rate

of calving, relatively steady low rate. In Australia, South Africa, and South America, they're now getting hundreds of whale calves born each year.

The females are strong enough to bear calves every four years; and there are hundreds of calves being born. That's what it could look like in an area where there are no human interactions. Of course in the northern hemisphere that is an idealistic picture. But in the southern hemisphere there aren't any ship strikes; there aren't entanglements, they are calving every four years. There is no mortality in adult whales. That is not to say that the whales are immortal; but it is just that these whales get to be very long lived, and we haven't been observing them long enough to see then dying of old age, whereas in the North Atlantic Right Whale, the average death of an adult female is at Age 35. They don't begin calving before 10 years of age.

There is a sex bias in the mortality. This is true for a lot of mammal species; but the females are more vulnerable to mortality sources that are related to energetic. Right, it's harder for females; they have to do a lot more work to reproduce. We're seeing that with the Right Whale; so that there are again only about 100 adult females right now alive in a population of about 440.

Peter Corkeron ran a model projecting what the population would look like if the rate of mortality observed prior to the 2017 event continued. This also assumed a calving rate of every four years. This is actually an optimistic projection. If the decline continues the way it is now; within 12 years we'll be down to the population level we saw in 1990. The 20 years of increase in the population will be erased within 12 years.

The takeaway is, there seems to be reduced food for Right Whales; forcing the whales to spend more time and energy looking for food, and requiring them to cross more space to find the food. The whales are encountering more

mortality sources; both fishing lines as well as in the Gulf of St. Lawrence, shipping traffic. There also may be a behavioral shift in the fisheries as well; so that we might be increasing the rate of interaction with the whales, as well as the severity of that interaction.

In the Tech memo, this third hypothesis was stated rather strongly; and not as a hypothesis. That is an error that I was asked to point out as well. If you want to take a look at the paper yourself it is available online; and you can contact Sean Hayes or Mike Asaro to ask them more questions, although I'm sure you have some for me now as well.

CHAIRMAN TRAIN: Do we have questions for Colleen? Pat Keliher.

MR. KELIHER: I do have, Mr. Chairman. I have some comments as well. But I do want to start with a question. Colleen first thank you for that report it is very comprehensive. As you know the state of Maine has some issues with the report in general; but a specific question in regards to the slides comparing to the southern hemisphere.

All of your comparisons were in regards to ship strikes; and to entanglements. Did you look at environmental factors? Did they have the same sort of environmental factors within the southern hemisphere as we do; because it seemed to be missing in that comparison?

MS. COOGAN: No, I don't believe they do; and it was indicated in the slide before that they were fat and happy, so I think that shows that they are getting plenty of food down there right now.

CHAIRMAN TRAIN: Ritchie White and then Eric Reid.

MR. WHITE: Kind of following up on Pat's line of thinking. If all gear was removed, do we know that the change in environmental conditions would still allow the whales to make a comeback, because it seems like the more

recent change in birthing seems to be more related to environmental conditions than it does to gear. It doesn't seem like there has been a huge change in gear during that time.

MS. COOGAN: There is probably a cumulative impact occurring, or course. I do think Amy Knowlton at New England Aquarium was going to try and look at that. There are so few whales that don't have scars on them that it is hard for them to find a control group; to look at the fitness of those whales that aren't scarred, to try and remove the entanglement factor. I guess that's what I've got for you. There was something else, I lost it.

MR. REID: My question is what has happened since 2010? You know we point at fisheries; fisheries have changed, vessel behavior has changed. The one thing that has changed is the amount of noise that is in the ocean. If you look at the seismic testing that is going on for wind farms and other sources of energy; especially in southern New England.

The amount of noise that the humans are making now has to have some effect on these animals. I mean you can hear a long way in the water. My question is what analysis has been done about the noise factor; and the way these animals behave? I never see anything about that. But there is a lot of noise.

MS. COOGAN: We have recently reinvigorated our Recovery Team for the northeast area; and they are looking at noise as one of the recovery factors probably impacting Right Whales. I can get you information on that as a get back; but I don't have that right now.

CHAIRMAN TRAIN: Representative Peake.

REPRESENTATIVE PEAKE: Through my laryngitis I'm going to try to ask a question. I'm going to pack two into one. The slide showing where the entanglements are happening, a lot of that data is close to 20 years old. I know as I talk to fishermen from Cape Cod Bay and the back side of the Cape. Of course they want to tell me that

oh, they're picking up this gear someplace else. I'm wondering why we don't have more recent data than that. Then the second question is regarding the migration north now to the Gulf of St. Lawrence.

What are the conversations that are happening with our Canadian partners? I know last year and the year before I read with great frustration about the ship strikes there; and knowing that we've taken extraordinary measures in Massachusetts to help protect the Right Whales. I felt a great deal of frustration that maybe our counterparts in Canada, we could do everything possible down here, but if they're not coming as honest partners to the table what is the good of any measures we may be taking here?

MS. COOGAN: I'll take your first question first. That wasn't intended to show where entanglements are occurring today. We get so few observations of gear on animals; where we can trace it back to the fisherman or to the locations that we just had to put them all together. That's 20 years-worth of data; so only 10 percent of the 111 entanglements observed, where we saw gear on the animal, could be observed back to the location of take. That is more just informative that takes can occur where there is gear. I apologize if that looked like we were just showing recent data. If I showed you the last few years of data, I don't know that other than a couple in the Gulf of St. Lawrence, I don't think we have any that we can trace back to the location of take.

Although changes in how we mark the gear has increased our ability to at least get back to a fishery; not necessarily to the location though. Regarding our Canadian partners, Canada in 2018 had an extensive, fairly dynamic response to what happened in 2017. They had one large area that was closed for the entire snow crab fishing season.

It was closed as well for lobster gear. As whales were observed in the area they were moving that and closing other areas. Similarly, they

were flying regularly over the shipping lanes; and they were asking vessels to slow down. We think that was fairly successful. Not one documented mortality in the Gulf of St. Lawrence this year.

It took extensive effort, and may not be sustainable over the long term. We're not sure what their long term regulatory scheme is going to look like; because included in the survey. I think they had six planes up; making sure that they were really covering the area and our own plane was up there, because our population assessment is based on mark/recapture. Our plane goes to where the most whales are; and there was a lot of the population up there this summer.

CHAIRMAN TRAIN: Emerson and then Dan McKiernan.

MR. HASBROUCK: Maybe I missed it in your presentation. But what is the issue with reduced availability of food? Can you expand on that a little bit?

MS. COOGAN: That's something that is still being studied. I don't have much to tell you; except that we do believe one of the reasons they're heading up to the Gulf of St. Lawrence is because the Calanus copepods aren't available, or aren't available in the right life stage in the Gulf of Maine as it used to be.

They're going up to eat copepods up in the Gulf of St. Lawrence. There is an appearance of reduced fitness appearance of the Right Whale population right now; and some of that may be reduced foraging, reduced food available to them. It is believed that this happens periodically and that generally the whales have evolved to be able to handle it; lacking of other stressors.

CHAIRMAN TRAIN: Follow up, Emerson?

MR. HASBROUCK: Do you know if anybody is doing any work or looking into the issue with reduced abundance of copepods; what's

causing that? Is that being driven by temperature change? Is it being driven by some other environmental factor?

MS. COOGAN: I'm not the expert on this. I do believe it has been attributed to changes in currents and to climate change generally. There are folks studying that; and again that is something that our Recovery Plan Implementation Team is looking at. We're hoping to eventually be able to model that so we can predict where the whales are going to be. One of our problems right now is whales aren't where they were historically. We're not sure where they're going to be in the future; as a result of that. Some kind of modeling would be really helpful; if we can every figure that out.

CHAIRMAN TRAIN: Dan McKiernan and then Pat Keliher.

MR. MCKIERNAN: Yes, I had the same questions as were just stated on the record. I just want to point out that there is a Calanus problem I think that's affecting whales; and it may be affecting lobstermen as well. The state of New Hampshire did a study; and they were looking at some of the Normandeau data, and they found that young-of-the-year lobsters were more abundant in years of good Calanus.

To me this is a Calanus story. I hope that NOAA can find a way to do as much as they can to document the change in Calanus; or whatever other zooplankton species these animals are feeding on. In Cape Cod Bay we have the Provincetown Center for Coastal Studies doing zooplankton monitoring for, I don't know 20, 30, 40 years now. I hope we can get as much data out of that dataset to help you all figure this out.

CHAIRMAN TRAIN: Pat.

MR. KELIHER: This technical memo was addressed by the state of Maine in a fairly lengthy letter back to the Agency; and I just wanted to recognize or highlight the fact so it is part of the record, it has been included in the

supplemental materials. We've got very significant concerns about the scientific merit that the memo has.

Any measure that we are going to put in place to protect Right Whales must be made and based on sound science; and we all recognize that. But this memo was inconsistent in its application and interpretation of some of the data. The author used web-based searches, conclusions directly contradicted information that had previously been presented by NOAA.

There were important conclusions and lack of citations; and many conclusions or opinions were made without any supporting documentation. Those were the main driving factors that caused us to send a letter into the Agency. There were two major incorrect assertions; one that 2015 vertical line regulations increased the strength of rope, and therefore the severity of entanglements.

Colleen, I appreciate you pointing the fact out that you recognize that that was supposed to be presented as a hypothesis. But the fact that it wasn't in that document is still out there without a correction is very problematic to me. There is also no datasets or analysis available to support the theory Maine received a Section 6 Grant, a very sizeable Section 6 Grant to do some rope breaking work.

We're in the process of doing that now. Some of the preliminary data that is in, it has not been calibrated yet so it's not the data that were going to be used. But it is initial rope breaking strengths are lower than what we expected, so as we move forward with that we hope that we'll continue to see that trend. There is a lack of data on this critical question; and we'll continue to hopefully nail that down. There is also talk about the greater lobster landings in Maine means increased landings offshore; which then is linked to increased vertical lines offshore. That is not the case. We know landings do not necessarily reflect effort in the offshore waters.

It doesn't there are more traps. It doesn't mean there are more vertical lines. Again, we can't be using landings as a proxy for effort. It has never been an accepted method; and we shouldn't be doing that now. I can go on and on, but I'm not going to here today. I had a very good conversation with the Regional Administrator last night; and I know there are more conversations that are going to happen here this morning, in regards to the issues of whales.

The lobster industry is worth 1.5 billion dollars to the state of Maine. The lobster industry is very willing; and members of the industry are willing to do more in the state of Maine, but it needs to be done the right way. That is the message. We are going to continue to be at the table to try to find the right way to move forward; but it needs to be done with the best available science.

CHAIRMAN TRAIN: Anybody else? Go ahead.

MR. DAVIS: I'm curious; given that there seems to be some pretty good information on the rate at which individual whales are being entangled, sort of the per capita probability of entanglement. We have information on mortality; and some information on the amount of gear in the water.

I wonder if there has been any attempt to do analysis with sort of how much would you have to reduce that per capita of probability of entanglement to start to bend that sort of population trajectory back up? I mean one way to look at this is anything that reduces the probability of a whale becoming entangled is likely to help. But I'm wondering if those sorts of analyses might give us some insight into how much do we have to reduce the risk of entanglement to really start to make a difference; to get the population to start to recover?

MS. COOGAN: You're anticipating a little bit that is in the next presentation which is that to reduce the risk; we need to reduce the

probability of the entanglement, and/or the severity of the entanglements that occur. That is the approach the Take Reduction Team will be trying to take. The paper or a different paper that was cited in the Tech Memo suggested that the mortality rates need to go back to the pre 2010 level; in order to start turning back up again.

That means not be exposed to a lot of the gear that is in Canada; or that gear having a reduced risk or a reduced severity for the whales. There is no precise number that has been identified necessarily; but there is sort of a target of pre 2010 encounter rates or severity.

CHAIRMAN TRAIN: Anymore questions? Okay, we've still got a few hours on this agenda; so if there is no opposition, I think I'm going to call for a recess, give everyone a biologic break, and we'll get on to the next item. Unless we have opposition to that and we're going to stay in recess for five or ten minutes.

(Whereupon a recess was taken.)

CHAIRMAN TRAIN: We're going to get started again. Would everyone please sit down? I'm going to let Colleen open back up.

MS. COOGAN: This is going to be a little more dry – more dry, it can get drier, like a good martini. I'm going to talk about the **Protected Resources Management related to Large Whales and fixed gear fisheries**. There are essentially two programs that affect how we manage large whales; one is the Marine Mammal Protection Act that is where the Take Reduction Team measures come from, the whole Take Reduction Process.

The other is Endangered Species Act Section 7 Consultation. The Right Whales have the luck of being both an endangered species and a marine mammal; and that can make management a little bit confusing. Some of you are familiar with our Marine Mammal Protection Act Take Reduction Program.

The incidental take of marine mammals is prohibited; except for if fishermen are following certain conditions. One of the conditions is related to the Take Reduction Planning Process; it's a consensus-based process based on a collaborative group that develops and recommends take reduction measures.

This is a table of the group on the Atlantic Large Whale Take Reduction Team right now; it includes 18 trap pot fishermen, as well as 5 gillnet fishermen. Some of those are also trap pot fishermen. It includes 6 conservation environmental organization representatives, 9 academic scientific representatives, 14 state managers, and 5 federal managers including me, 4 fishery management organizations, for a total of 61 people on the team. It is the largest Take Reduction Team in the country right now.

I've put in red throughout this presentation the areas where the Atlantic States Marine Fisheries Commission people or efforts overlap somewhat with some of our take reduction and consultation processes. There are 14 state managers; a manager from every Atlantic state. There are also 4 fishery management organizations. Megan is your representative on the Take Reduction Team. A Take Reduction Team is required if the incidental mortality and serious injury in fisheries exceeds what's identified as a potential biological removal level.

For Right Whales that level is 1 these days; so if there is more than 1 serious injury or mortality caused by incidental take in a fishery, we are required to have the team consider how to modify measures to reduce takes. NMFS has the ultimate responsibility to take action. While it's theoretically a consensus-based process, in the end if there is no consensus NMFS has the responsibility to take action if we are over the potential biological removal level.

This Take Reduction Team has been active since 1997; and has taken a number of actions over that time period. We establish weak links. We had dynamic area management programs and,

well a number of actions. I want to bring your attention to 2007; which is when we expanded weak link requirements. We also required sinking groundline in most of the lobster fishery. We got rid of our dynamic area management; because it was very hard for us to move as agilely as needed to do that. We started basically our vertical line reduction strategy. For the last 10 years the Take Reduction Team has really been trying to figure out ways to reduce the number of vertical lines in the areas where whales are. That includes both identifying appropriate seasonal closure areas; as well as other methods of trying to reduce vertical lines in the water. How are we doing? The red dots show the potential biological removal level; and this just shows the number of serious injuries or mortalities documented in U.S. waters.

The darker grey is the known to be U.S. gear. In some cases we don't know where the gear comes from. These are minimum estimates; based on what we see and our observer data is really opportunistic. It requires a whale to be near a boat or near a beach or on a beach dead. As you can see there are only two years since 2000, where we can say with certainty, well not even really with certainty.

But at least we didn't observe any serious injuries or mortalities in U.S. waters or by U.S. gear. Unfortunately this is the most recent one; sorry, this is a little bit gory for this early in the morning. We talked about 2017 when there were 12 animals killed in Canadian waters; and I believe another 5 were observed in U.S. waters.

In 2018 we've had 3 Right Whale mortalities. The most recent was last week. All three of the ones occurred in U.S. waters; all three showed signs of pre-mortem entanglements. In January the whale that was brought into the Virginia Beach for a necropsy had indications of Canadian snow crab gear. That one we have attributed to a Canadian fishery.

There was no retrieved gear in the whale that was brought to Martha's Vineyard in August; or

in the whale seen offshore of Cape Cod last week. As you can see from this one from last week, there were signs of pre-mortem entanglement, but no gear on the whale. The Take Reduction Team was reinvigorated a little bit in 2018; due to the 2017 paper showing that the increase in the population had turned around in 2010, and then also due to the 2017 large mortality events.

We had two spring meetings of sub groups; the Weak Rope and Gear Marking Subgroup, and the Ropeless Fishing Feasibility Subgroup. This presentation includes links to the key outcomes from those meetings; if you're interested in looking at what happened at those meetings. Then just a week and a half ago we had a full group meeting.

There were nine proposals submitted by TRT members that were reviewed at this meeting; and three work plans were developed. Our goal for this last meeting was really to come up with elements of a potential plan. We weren't asking the Team to choose final recommendations to provide to NMFS.

We still have to analyze the elements of the proposal that we received; and bring them back to the team for a meeting that is planned for March, the week of March 12. The work plans that were developed by the team members directs us on what kind of analyses they need to see; and what kind of work needs to be done.

General themes for the proposals I mentioned a little bit earlier; to reduce risk by reducing the probability of entanglements. That includes some new or modified seasonal closure areas. There is a suggestion of increasing the visibility of ropes to whales. There is some work that has shown that whales can see red line better than other types of line. There is also about one Right Whale a year is disentangled by volunteers; and they have trouble seeing dark colored ropes when it's on the whale, and it's a life threatening job. It was also put forth that a red line would be easier for the disentangles to see when it was on the whale. Then there was

a recommendation of the continuation of the vertical line reduction strategy.

Included in proposals were trap caps and reductions in traps as a proxy for vertical line reduction, ropeless technology, particularly in new closure areas or for brand new fisheries as well as for aquaculture. One of the proposals suggested that the deeper water fisheries, if they can't use a weaker line that they phase in ropeless over five years.

There was a suggestion that we limit any new fisheries that use vertical lines; especially in the Gulf of Maine, especially in new closure areas. Right now there are some exemptions for some fisheries that are still allowed to use floating ground lines; so there was a suggestion that we remove any exemptions for floating ground line.

Then some of the proposals suggested reducing the risk of basically severity of the entanglements; entanglements that cause serious injury or mortality. That includes mostly proposals around reducing breaking line strength; 1,700 pound breaking strength has been suggested as being relatively safe for Right Whales, not as much for Hump Back Whales.

Very few whales with serious injuries and mortalities that have gear on them still, are in gear lighter than 1,700 pounds breaking strength. Rope diameter caps were also suggested as a proxy for the 1,700 pound breaking strength; 3/8 inch rope diameter was suggested for Massachusetts fisheries. Then the South Shore Lobstermen Association has developed a sleeve that is put on a rope every 40 feet that also allows the rope to break; at actually less than 1,700 pounds.

This was a proposal that Commissioner Keliher brought up. In the study being done by Maine DMR, it's finding that a lot of the ropes that are currently being used that are 3/8 inch rope diameter or other rope diameters are breaking at 1,700 pounds or less. That study has another two and a half year to go before we'll have all the results of that. Maine also suggested that

they reduce their surface system rope configuration as another way to reduce the complexity of entanglements that might happen.

An additional themes for the proposals included ways to inform future risk reduction. Those included some gear marking proposals that would allow us to better identify the location of an entanglement when gear is retrieved. There were recommendations to increase reporting requirements; and a number of recommendations to increase research, especially to look at gap areas. There is a lot of the year; right now we don't know where many of these whales are.

There are still in the Gulf of St. Lawrence. But Right Whales are very difficult to see when they're not aggregated. There are long periods of time where we're not sure where they are; and so there are some recommendations that we fill in the gaps. The Team also went back and created in small groups of their own after the meeting on Thursday night; when everyone was exhausted. They did a great job, and Megan helped run one of those small group sessions. They created some work plans, and those were really to guide analysis of how to know which proposal elements should be selected in March. I probably don't have everything from the work plans in here; again, this meeting ended a week ago Friday, so a week and a half ago. But included were recommendations for how we should evaluate some of the probability reduction options. They would like closed area criteria to help us determine which closed areas would be best.

They wanted to know that there could be a state role in dynamic closures; again, it's very hard for the Feds to be agile in opening and closing areas. The states have an ability to be more agile. They wanted a work group to consider line reduction options; and the associated socioeconomic impacts. There was also some suggestion that if ropeless experimentation was going to be allowed, it should be truly an experiment.

It should be considered to be allowed in future closed areas, and there should be some work to identify currently mobile, gearless areas. Looking at VMS and other things we already have in place, see if we can identify areas where there is not a lot of mobile gear going on, so that experimentation can happen immediately. There were suggestions on how we could evaluate options to reduce the severity of entanglements.

One option that I think is already being worked upon is the idea of getting together a work group that would include gear manufacturers and rope engineers; to get together with fishermen and scientists to investigate rope, including some of the Maine lobstermen invited some of our scientists to go out fishing with them, to see what kind of rope they're dealing with, and why simple suggestions like changing marking is not as simple as it sounds.

There were also suggestions about determining whether or not manufactured gear marking is possible; so that gear marking could be done off the shelf, it could be bought by the fishermen. There were concerns that our attempts to use the data we had, which is through the industrial economics group, some of you might be familiar with their model that that's not good enough.

They wanted us to work with a work group to calculate the baseline vertical line numbers; and compile total and latent effort in all states, partly to determine whether or not a lot of the effort reduction that ASMFC has been doing has been effective. Some of that we understand is a mid-implementation. There were concerns about Area 3 enforcement; and the wish to investigate Area 3 enforcement capacity, and again desire to research whale movement and behavior, evaluate survey strategies, figure out what's going on when we don't know where the whales are.

Again, what I have highlighted in red are a couple of the areas where ASMFC is already doing work or is perhaps better suited to some

of this work; so a work group that leverages some of the efforts already going on in this organization would be really useful. Then as was expressed here, there is a desire to collaborate with the Canadians on what they're doing; and to make sure that some of our efforts such as gear marking be done in collaboration with them, so we have coastwise marking, not just U.S. Fisheries being marked.

That is the end of talking about the Take Reduction Team Process. Again, that meeting was just a week and a half ago. Now I'm going to talk a little bit about the Endangered Species Act Section 7 Consultation Process. I believe there may have been a presentation on Section 7 last December. But this is the part of Endangered Species Act that requires Federal Agencies to make sure that anything that they're doing that they're paying for or that they're permitting doesn't jeopardize the existence of any endangered species or destroy or adversely modify critical habitat. Jeopardy is a big word; essentially when an action might directly or indirectly diminish a species' numbers, reproduction or distribution so the likelihood of survival and recovery in the wild is appreciably reduced.

When we're looking at a population like Right Whales that is showing signs of reduction that the projections are looking somewhat grim, then any impact on that population has greater consequence than when the population is rising. That is why this Section 7 process is pretty serious when you have a declining population.

The way the process works is, a federal action agency, which in this case is basically the Sustainable Fisheries Division or, perhaps if we write Take Reduction Team regulations we're actually the action agency in that case that the action can be the regulations or it can be a snapshot of the fishery.

When it is determined that it may adversely affect a listed species, then formal consultation is triggered. That formal consultation ends with a biological opinion prepared by NMFS by our

Section 7 Team. What is a biological opinion? A lot of us have been throwing that term around. It's basically the conclusion of the formal consultation.

It summarizes the effects of the action on the listed species or the critical habitat; and it provides NMFS professional opinion on whether or not the action is likely to jeopardize the continued existence of the species. Biological opinion can have two possible conclusions; one is a no jeopardy opinion, and that is the most common conclusion to biological opinions.

They result in some conditions; reasonable and prudent measures, which are mandatory terms and conditions mostly related to pinning down agreements that were already made to minimize, to monitor, and to report on the impacts of the incidental take. You can't just walk away; you've got to make sure that the monitoring goes on, and that the conclusions of the opinion were valid.

But it's usually somewhat consistent with the proposed action. There are also conservation recommendations which are discretionary measures; to minimize, promote recover, or avoid adverse effects. A jeopardy opinion is more serious and more rare. A jeopardy opinion results in reasonable and prudent alternatives to the current operation.

That means it's an alternative to what's currently going on or alternative to what's being proposed. It has to relieve jeopardy; it must be consistent with the intended purpose of the action and the scope of the action agencies legal authority, and it must be economically and technologically feasible.

In 2017, after Richard Pace's paper showing the decline in the population starting in 2010, we reinitiated consultation on a number of fisheries. We have reinitiated it on the red crab fishery, the lobster fishery, and then what's called the batched file, which is a number of fisheries including groundfish, monkfish, dogfish and a number of fisheries. There are some

options about what we would be consulting on. We can be consulting on the fishery as it is currently occurring; so the fishery as it's occurring now, during a time when we have a declining population. The conclusion may be jeopardy to a fishery, to a consultation on what's happening right now, or we can analyze the fisheries as modified by federal rule making. Because we are anticipating that the Take Reduction Team is going to be modifying our Take Reduction Plan.

We can wait and see what the Take Reduction recommendations and the subsequent rule making will be. We can continue doing the analyses that we're doing now; have that inform the Take Reduction process, and have the Take Reduction planning inform the Section 7 consultation process. Additionally, if there is anticipated Commission or Council rule making that can inform the biological opinion as well.

One biological opinion could be done very quickly; one can be done anticipating changes in rule making. This was actually provided to me by Chip Lynch, as a way of kind of informing your thinking on how we do consultations; or your ability to be part of the consultation. This is the track that the ASMFC is used to; where you have your lobster plan, and that informs federal rule making, and that informs the federal regulations.

The Take Reduction process has been going on sort of parallel to that. The Take Reduction Team recommends measures that results in federal rule making; and that can result in regulations, including regulations on the lobster and Jonah crab fisheries. Because of the declining whale population and the paper done in 2017, we've reinitiated consultation on a number of the fisheries; as I said, including the lobster and Jonah crab fisheries.

We've brought that to the Take Reduction Team; and we're considering, these are feedback loops basically that the Section 7 Team is considering what we're doing under the MMPA Take Reduction Process, and we are

considering what the Section 7 consultation needs to avoid a jeopardy conclusion. But right now the ASMFC process is not really tied into that Section 7 process as tightly as the Take Reduction Team process is. This is just illustration of that.

What's next? The ASMFC has already got a member on the Take Reduction Team; and the states as well. We'll continue collaborating on the Take Reduction Team. We'll also, as Commissioner Keliher mentioned, we're getting more appropriate data from the states; from Maine, and I think New Hampshire has also offered to work with us and make sure we have the best information.

I think Massachusetts will as well. We'll continue to collaborate on data and fisheries characterization information; to make sure that the TRT process and the Section 7 Consultation process are using the best available information. Then I think that we need to consider how the ASMFCs management goals align with the Protected Species Risk Reduction goals moving forward.

If you've got questions on any of this, I can help you with the Take Reduction Team process questions. ESA Section 7 consultation, Dan Marrone is our lead on that and in Sustainable Fisheries Division; you can continue to work with Peter Burns and Allison Murphy.

CHAIRMAN TRAIN: Questions for Colleen, David Borden.

MR. BORDEN: Colleen, two points, the Section 7 consultation should be finished when? What is the timing of it?

MS. COOGAN: I'm not sure of the timeline; and it does depend on what we're consulting on.

MR. BORDEN: Okay, the other point I would make is there are a lot of moving parts on this issue. For transparency purposes, I serve on the TRT, so I may be slightly better versed on some

of this, and there are other individuals in the room that fall under the same category.

It might be helpful to allow Mike Pentony to talk about the issue that Colleen put up about the parallel tracks that we've got going on here. There is also a litigation track that I think everyone should consider; before we get into a discussion, I would point out we have a number of new Commissioners at the table that probably don't have a lot of background on that.

CHAIRMAN TRAIN: Mike, would you like to speak?

MR. MICHAEL PENTONY: Sure. Yes, just to David Borden's point and to emphasize a couple of the points that Colleen made in her presentation. I want to make sure everyone is clear that there are these parallel tracks that are ongoing; and to distinguish the focus and the purpose of those tracks.

The Take Reduction Team is meeting as Colleen described. That process we had a really productive week two weeks ago. The outcome of that at this point is three work plans proposed by the TRT. We will be working to do the analysis and bring back information; so that the TRT can reconvene in March, and hopefully make some specific recommendations to us under the Take Reduction Plan for that process.

To Mr. Keliher's point on the Tech paper, you know we recognize that there are some additional data sources; that there are some issues with that Tech paper. I want to be really clear that the Tech paper is not the only document or analysis that we will be using as a basis for any action or decisions moving forward.

We will consider all of the points raised by the state of Maine, and by other members of the TRT at the meeting two weeks ago. We'll kind of be looking at these issues, these work plans that the TRT gave to us as a fresh start; and make sure that we're collaborating with all of

the states, Commission staff, and other experts that we have the appropriate data, and analyzing the data appropriately moving forward with those work plans to bring back to the TRT in March.

Similarly on the Biological Opinion side. We will not be using that Tech paper as the only source of information on which to conduct the Biological Opinion. We would like to work closely with the states and the Commission staff; again, to make sure that we have all the appropriate data to characterize the lobster fishery in particular, as a backdrop or a baseline for that Biological Opinion. Sorry for that little aside, but back to the dual tracks. The Take Reduction Team, as Colleen said that is operating under the Marine Mammal Protection Act. The Take Reduction Team has an objective of reducing serious injury and mortality to below the PBR, the potential biological removal level. That is the singular goal of the TRT. That process will be ongoing; as Colleen said and as I said, now we're doing the analysis. We'll be reconvening in March, with the hope that we'll get a specific recommendation from the TRT.

Then we can take that and initiate rule making. Meanwhile, we are continuing to work on the biological opinions that Colleen described, under the Endangered Species Act. Different focus, the focus there is whether or not the actions, the activities that are the subject of the biological opinion are leading to jeopardy for the species.

When we look at jeopardy, we have to look at not only serious injury and mortality; but we also have to look at reproduction, we have to look at things like non-lethal entanglements, the stress that those entanglements may be causing to the population and the degree to which that stress may be leading to reduced rates of reproduction.

We've heard that that is a significant concern. There are certainly interactions, interrelationships between environmental

changes; but that stress is something that we have to take very seriously, and look at very carefully. Those processes will be going on in parallel; and we hope to work with the Commission and the states, to make sure that all of our information is accurate and complete.

The concern I think is on jeopardy; finding the jeopardy conclusion in the Biological Opinion. One of the reasons why these are going on in parallel and not sequentially is one we have an urgent situation that we need to deal with; and we need to make as much progress on the Biological Opinion as we can, while the TRT process is ongoing.

But also, I want to be clear that when we make a jeopardy decision on whether or not jeopardy exists for the Right Whales, we're not going to be making that decision based on conditions today. We will be making that decision based on the conditions at the time that we make the decision; which means that if the TRT has completed its work, and given us specific recommendations that we are then moving forward in rule making.

Then the effect of those changes will be considered when we make the jeopardy decision. Similarly, if this body takes up this issue through an addendum or some other action, and makes a decision or puts forward measures that would affect the interaction between the lobster fishery and Right Whales.

Then we will take that into consideration and the effect of that action when making a decision about whether or not jeopardy exists moving forward. We will be making similar presentations that you heard today to both Councils; hopefully at their December meeting and raising similar issues with the two Councils as well. I hope that addresses the question; and if there are any others I would be happy to field them.

CHAIRMAN TRAIN: I think I might have seen a door open there. Go ahead, David.

MR. BORDEN: I would just offer this. I thank Mike for doing that. It helps. There are kind of two tasks that I think we need to kind of focus on; one is this issue of the data elements, and Pat Keliher and his staff critiqued that report that came out from NOAA, and had a lot of, I think, useful comments that could be integrated into the information that goes into inform the Biological Opinion.

If you take collectively around this table, I would just make the point that there isn't a jurisdiction at this table that isn't going to be negatively affected by a potential determination on this; because every single jurisdiction represented here has fixed-gear fishermen that are going to be affected by whatever the determination is.

To me kind of the first step in the process is we need to get engaged in it; not to drive the results, but to provide input to make sure the data is clear, to collaborate with NOAA and the Council, and whoever else we have to collaborate with to have the best data possible that goes into the Biological Opinion. That I think is kind of step one in the process.

I view that as something that the Commission leadership, working with the Lobster Board Chairman has clear discretion to kind of move ahead with. I don't think there are going to be any objections around this table; and if somebody objects please speak up, to try to clarify the data and use best scientific data to go into the Bi-Op.

The second phase of it, and I can offer a motion if it is necessary; is the TRT process. As Mike and Colleen described, they're going through a fairly logical process that is going to result in recommendations. My concern is this group needs to get integrated into that. We have individuals like myself and Cheri, and a number of other individuals in this process that participate in that in a dual capacity.

That is useful, but we really need to have some kind of recommendations from this group. As

TRT recommendations move forward, and I'm going to give you an example of this point, and I apologize, Mr. Chairman, if I take a little bit longer than your two minute rule on this, but it's important.

We need to have a Commission position and a Commission recommendation on some of these recommendations. Megan, do you have that slide on the Area 537 ruling? I'm just going to put this up. We don't need to discuss it; but I want to give everybody an example. This is a different slide than I used at the TRT meeting.

What this slide is, is a representation of the wind area in southern New England. There are five lease sites in this whole dialogue that's going on now of what the transit zones are going to be through here. But this area, the wind area, and it goes back to the point that Eric Reid made, and I honestly didn't put him up to doing that. This is one of the locations where the whales are.

Exactly, if you take the observational data, they align quite well with where the whales are at certain times of year. This also happens to be the area where the Jonah crab fishery, the predominant landings when Megan gave the report about the Jonah crab fishery. It's flourishing; this is where the landings are coming from. There is a lot of gear in there. New England Council regulates with the Mid-Atlantic Council monkfish fishery and with NOAA and the skate fishery. There are huge landings coming out of this area; and there are lobster landings coming out of this area. There are a lot of different fisheries that take place in this area. This is just an example. We need to be involved in those deliberations.

My suggestion is instead of getting into a lengthy discussion of how we do that here; I think we need to form a working group, and I know this is the second time I've suggested this today. But a working group to evaluate the TRT options, and any other suggestions and strategies as appropriate; and report at the

winter meeting, and this kind of follows up on both Colleen and Mike's suggestion.

If we were to do that then we would have a very informed discussion here about what are the options, what are our preferences. We could then decide whether or not we wanted to take an ASMFC action; in other words start an addendum, or whether we wanted to at that stage send recommendations into the TRT process to try to inform the deliberations at that process.

I'm sorry to take so much time; but I think this is really important, because everyone around this table has fisheries that are going to be affected by the outcome of this deliberation. I'll defer to you, Mr. Chairman, whether or not you want a motion on that. I can make it as a motion if you like. We could also do it by consensus if we don't have objection.

CHAIRMAN TRAIN: If there is no objection at the table to starting a working group, we can just move forward with this suggestion. Is there any objection to it? Thank you, David. Is there anybody else? Pat Keliher.

MR. KELIHER: First of all I want to thank Mr. Pentony for his clarification on the use of the Technical memo. To David's point, I think it's absolutely critical that the Commission and the state as members engage on the issues of data and data collection. The TRT certainly highlighted some of those gaps that we need to focus on.

I think bringing it back around to the Commission process, to engage with the Agency is very appropriate at this time. I don't oppose this whole concept of a working group; what might come out of the working group at some point I may have issues with. But I think this is the right first step at this time. We'll certainly have my staff engage with the working group at whatever level is needed.

CHAIRMAN TRAIN: Go ahead, Mike.

MR. PENTONY: I just wanted to thank Mr. Borden and this Board for moving forward in this way. I think this is a good approach. We're eager to work with the working group; whatever you need we'll have the appropriate people to assist it. Timing is good for coming back at the winter meeting to look at the options, look at the measures, and develop some recommendations and a plan moving forward in parallel to the TRT and our work on the Biological Opinion, so thank you.

CHAIRMAN TRAIN: Pat again.

MR. KELIHER: Just quickly. The one point Mr. Pentony brought up earlier; which I don't think this Board should lose sight of is that our actions could impact jeopardy in a jeopardy finding. I think that is a very important thing to keep in mind, first and foremost as we move forward.

CHAIRMAN TRAIN: Are there any other questions, statements on this topic on the agenda? Okay, thank you very much; oh Ritchie, last minute.

MR. WHITE: Last minute thought. A question for Megan, thinking about the conversation that Pat has been going through, what is the process in the Commission if there would be a limiting of lobster gear in the water; is that an addendum or an amendment?

MS. WARE: If you're speaking about trap reductions, we can do that via an addendum.

**REVIEW OF THE
AMERICAN LOBSTER ADDENDUM XXVII
TIMELINE**

CHAIRMAN TRAIN: Item Number 8, Discuss the American Lobster Addendum (I don't read Roman Numerals well) XXVII Timeline.

MS. WARE: All right, so this is more just a discussion for the Board; there are no meeting materials for this. But obviously there is a lot of action going on right now with the Lobster Board. We've just initiated two working groups.

We have the discussion of Right Whales ongoing.

But I also wanted to remind the Board that we did initiate an addendum; which was Addendum XXVII, to consider the resiliency of the Gulf of Maine/Georges Bank lobster stock, and it was focused on standardization of management measures. The TC and the Plan Development Team have been continuing to work on this document.

It's something that could be ready potentially in another meeting or so. But given all of this ongoing action, I'm hoping to get some prioritization from the Board as to what you would like staff and these groups to be working on; because there seems to be a lot ongoing, and if there is a way we can either streamline or strategize onto how to accomplish this that would be very helpful from a staff perspective.

CHAIRMAN TRAIN: Pat.

MR. KELIHER: The whole idea of that draft addendum was to deal with stock resiliency; and I think the issues of resiliency could very well be addressed with some of the work that's going to have to be dealt with from a whale perspective as well. From a prioritization standpoint, I would delay further work on the draft addendum at this time; and put all of the focus into the working group, because I think these issues are all going to kind of meld together eventually.

CHAIRMAN TRAIN: Doug Grout.

MR. GROUT: I would concur with Commissioner Keliher's suggestion here. I hope the rest of the Board would feel the same way.

CHAIRMAN TRAIN: Dan McKiernan.

MR. MCKIERNAN: I don't know I'm not thrilled about that; because I foresaw some adoption of more consistent biological measures coming from this. I really don't think that in response

to the Right Whale crisis there is going to be any modifications to the biological measures.

MS. WARE: Clearly we have differing opinions. I think there are a couple options. If this Board is going to take action regarding Right Whales, or actions related to that topic, I mean it can be incorporated into Addendum XXVII. That's going to make a pretty large addendum; so it is also possible to keep it separate.

I think I'm just trying to understand how to be prioritizing staff time; as well as Technical Committee time and things like that. Because you know in addition to that analysis; they are also working on a benchmark. There may be some analysis for Right Whales; so I'm just looking for guidance on how to prioritize the tasks in front of this Board.

CHAIRMAN TRAIN: Doug Grout and then Pat.

MR. GROUT: Yes, Commissioner McKiernan, I hope you understand what my support of this was just the prioritization process. Then yes in the prioritization process clearly what we have the Right Whale issues that are happening right now, and we need to be involved with this. I think we have to prioritize that in advance of the work on that in advance of the spring.

It doesn't mean we're going to give up on concepts that we were talking about for Addendum XXVII, standardized measures, but there may be some other things that come out of what happens in the Right Whale discussions here that may be needed to be included. My thought, are you indicating that we should not prioritize the Right Whale work over this, if we don't have the bandwidth to do both?

CHAIRMAN TRAIN: Dan, do you want to reply?

MR. MCKIERNAN: Well, no one has been more in the crosshairs of Right Whales than my Agency; so I get that and I understand the crisis of the moment. I guess I would hope that the Board would just recognize that maybe we can work as quickly as possible in unison with

NMFS; to take actions regarding a response to Right Whales, but quickly get on this other.

I'll yield to making the Right Whale issues a next priority; but I don't want to see this kicked down a year or two, because I've been dealing with some pretty screwed up rules in my state for a long time. Now that the two stocks have been combined as one, and that was about three or four years ago. I regret that we haven't made quicker progress. But I will yield.

CHAIRMAN TRAIN: Pat are you good there or do you have more?

MR. KELIHER: I'm good; I mean I agree with Dan's concerns. I mean I think we need to get on with that. But as Commissioner Grout said this is really about prioritization. Based on the timing of issues I think you're right, Dan. We need to make sure that we're expeditiously working through the issues of Right Whale and the data collection between now and the February meeting. Hopefully it won't delay this whole process that much further.

CHAIRMAN TRAIN: As I understand it we're going to focus on the Right Whale; table the other work, but it's not going away, right? Good, anything else? Okay, Electronic Tracking.

UPDATE ON THE ACTIONS OF THE ELECTRONIC TRACKING AND REPORTING SUBCOMMITTEES

MS. WARE: I'm just going to provide a brief update on the Electronic Tracking and Reporting Subcommittees. I think this is the first time I've reported out to the Board on the actions or work of these subcommittees, so this is an update for you guys. As a reminder, Addendum XXVI did two things. It established a one-year pilot program to test tracking devices in the fishery; to both address that spatial resolution of data, but also some enforcement concerns.

Then it also requires 100 percent harvester reporting in five years; with the prioritization of electronic harvester reporting development during that time. To carry out these tasks the Board established two subcommittees. We

have our Tracking Subcommittee, and our Reporting Subcommittee.

I'm going to start with the Tracking Subcommittee. The purpose of this group is to design and implement the one-year pilot program; and this will include identifying devices which are available and applicable to the fishery, testing multiple tracking devices in various conditions, and evaluating and then communicating the results of that pilot program.

Membership on the Subcommittee includes state representatives. We have law enforcement, industry representatives, as well as staff from ACCSP and ASMFC. To date most of the work of the Subcommittee has focused on reviewing recent and ongoing tracking studies in various fisheries; investigating several available tracking devices.

We submitted a grant proposal to fund the pilot program; and I'll talk about that more on the next slide. Then we're also starting to develop evaluation criteria to measure the outcome of the pilot program. A bit on our grant proposal, it was submitted as part of the ACCSP RFP. The objectives of our proposals are to understand which devices are appropriate for use in the fishery, and to improve the resolution of catch and effort data.

The proposal identifies four tracking devices for testing; and generally these devices have the capacity for a fast ping rate. That was a recommendation from the Law Enforcement Committee. They also tend to rely on cell service as opposed to satellite; in order to minimize cost of the device. The proposal also focuses on six testing regions; and these were identified as areas where lobster and Jonah crab is the primary catch, but also fishermen may not have permits for other species which would require something like VMS.

The ACCSP Coordinating Committee will be approving grant proposals at this annual meeting; so stay tuned to see if we are awarded

that money. Then for our Reporting Subcommittee, the purpose of this group is to guide the development of electronic harvester reporting in the lobster and Jonah crab fishery. This includes evaluating the needs for an electronic harvester reporting form; based on the state and the FMP requirements, evaluating various electronic-reporting software, recommending simple and logical solutions, particularly to how we collect spatial information to improve the ease of reporting, and then outlining a timeline for development of electronic harvester reporting. Membership here includes again state representatives. We have TC members; federal partners, ACCSP and ASMFC, and I did want to note there are people who serve on both subcommittees, so there is overlap there since these are related issues.

So far our Subcommittee has met six times via conference call; and some of that work has been to identify a common set of goals, as well as steps to achieve those goals. We've brainstormed a suite of desired features that we would want to see on a reporting form. Then we also had a series of calls with reporting software developers, and this was to understand what is available and what can be produced.

Our most recent call was really a debrief on the calls we had with the different software developers; and the discussion primarily focused on the pros and cons of either identifying a single preferred software provider, versus developing a list of specifications which would allow multiple software providers to try and meet those standards.

I think some of the Subcommittee members highlighted some of both the pros and cons of both of these approaches. In terms of identifying a single preferred software provider, some of the concerns were that people don't want to be shoved in to a single solution. There was also concern that a single reporting form can lead to complacency and also cost increases. On the other side of the coin, in terms of developing a list of specifications

which multiple providers could try and meet those standards.

There was concern that if there are multiple software providers then those all need to be verified. Then there was also concern about the financial incentive for multiple software providers. If there is no upfront compensation from jurisdictions or management bodies to develop this software, the developers would likely have to recover cost through a paid fishermen subscription service; and so there were questions about what financial incentive this provides.

The Subcommittee did note that an exception to this likely is eTrips; as their software development is primarily included in the budget of ACCSP. The long story short on that one is we're continuing to work. We continue to have discussions about this; and I think our focus right now is balancing the desire for flexibility with the reality about quality management and cost. With that I will take any questions.

CHAIRMAN TRAIN: Questions for Megan. David Borden.

MR. BORDEN: Not a question but a comment that I would just note that I think this is all part of the process. I think this is all really useful. I would note that Jason and his staff are initiating a similar pilot project; it will have broader application than just lobster fisheries, because it's going to have primarily a finfish application and look at multiple gear types. Maybe he can provide more guidance than that. But that I think is going to be implemented sometime around the first of the year.

CHAIRMAN TRAIN: Go ahead, Jason.

MR. JASON McNAMEE: Yes, I won't say too much other than to say that we've been actually communicating with Megan as we've been developing our program; it's for an aggregate landings pilot in the state, but conceptually very similar, electronic monitoring which allows for greater accountability and

enforcement. It's a good program. I think there is some overlap with this working group; although not complete overlap.

CHAIRMAN TRAIN: Anybody else have questions for Megan? Pat.

MR. KELIHER: The report that Colleen did in regards to the TRT talked about the enforcement issues offshore. It talked about they need to be able to haul gear. But one of the issues that has constantly come up is with the conversations that I've had with enforcement is the offshore tracking capability. I think we really need to understand that this is also going to be linked very closely to the issues regarding whales and compliance; along with the need for an offshore vessel for hauling gear.

Will this Megan, will this conversation in your report be given to the Law Enforcement Committee as well? I think we need continued comments back from the Law Enforcement Committee to this Board about how it's working; the timeframe, and those type of things, because both the tracking and the offshore vessel are critically important as it relates to both lobster management and whales.

MS. WARE: It wasn't planned but we can certainly do that; because we do have time set aside to talk about offshore enforcement, so I'm happy to provide an update.

CHAIRMAN TRAIN: Anybody else, questions on tracking and reporting? Jason.

MR. McNAMEE: A question for Megan. In the discussions, I don't know if this is even possible to answer, but one thing that I'm curious about, and it intersects with the pilot that we're working on in Rhode Island is this idea of building criteria and allowing for multiple vendors. Can you summarize the group's discussion on that?

I'm trying to see which way the group is leaning. I like that idea; just because you don't have to

top down dictate the technology. But I guess I'm wondering about the administrative complication that is going to create. How did the group discuss that; was it more that's a good idea let's pursue it, or that's going to be really complicated? Anything you can provide would be helpful.

MS. WARE: I would say the group is split 50/50. I don't have a sense of they were leaning one way or the other. I'll say this was our initial discussion on this; so it continues to go on. But I think some of the concerns that were raised were, as you said, kind of the administrative burden of making sure all of these software providers are verified; who was capable and certified to do that and as I mentioned also kind of the financial incentive.

If we put out a list of specifications, how many software providers do we think would actually bid? It's not a monetary bid; but try to meet something to meet those specifications, given the suite of alternatives that are out there. Those were some of the concerns.

REVIEW AND POPULATE JONAH CRAB ADVISORY PANEL

CHAIRMAN TRAIN: Okay, we need to review and populate the Jonah crab Advisory Panel membership. Go ahead, Tina.

MS. TINA BERGER: **I offer for your consideration and approval Marc Palombo; a commercial trap fisherman from Massachusetts, to be appointed to the Jonah Crab Advisory Panel.**

CHAIRMAN TRAIN: David Borden.

MR. BORDEN: If we are ready for it I would like to make a motion to approve his appointment. I would note he's one of the members of the Association; he's a terrific guy, very knowledgeable and has a lot of experience.

CHAIRMAN TRAIN: Dan. **We have a motion to accept; second by Dan. Further discussion;**

**okay any opposition to the nomination?
You're in by consensus.**

OTHER BUSINESS

CHAIRMAN TRAIN: Other business, Brian Langley, you had something?

SENATOR BRIAN LANGLEY: Thank you Mr. Chair, and members of the Board. I'm Brian Langley, this is my last meeting. I'm serving on the Maine Legislature; I've been in there 10 years, and I think I have all of maybe 30 seconds of microphone time in the six years that I've served on this Board, so I beg your indulgence for a couple of minutes.

I would like to give some parting observations as I finish up my tenure both here and in the Maine Legislature. You know when I first arrived and spent some time I was fairly skeptical coming down to where all of the Feds gathered, because we back home like to blame all of the Feds for the decisions that affect us. You serve a great purpose; this Board does, in taking the heat for those decisions. I just have a couple of observations. I know I stand between us and a break. What I've noticed that the science really drives the decision makings of this body, and that science depends on good data, and good data depends on good reporting, and good reporting really depends on the fisherman.

Having spent six years down here with our Chair, I could tell you that they really lie, the fishermen. I'm just joking. But each state owes a debt of gratitude to the fishermen who come and serve on this Committee, and Mr. Chair on behalf of the state of Maine, I would like to thank you for your devotion and dedication to taking time off the water to come and serve, not only the state of Maine but all the Atlantic coast states.

The same thanks and appreciation really go to our state Commissioners; who have to think globally when they're here, and then act locally back home, and at a lot of times at some great peril. Maine, I believe has the great fortune and

blessed to have the likes of a Pat Keliher and his staff. Many who are here in the room, and having served four years on the Marine Resources Committee in Maine, I can attest to their quality.

They all represent the interest of Maine; but at heart are conservationists with all the best intentions to preserve the fisheries for all of us and their future generations. I also commend the legislators that show up here each and every time that I've been here; Representative Peake and Senator Miner. For those of you who don't live in the world that we do, this is campaign season, and every minute that they are sitting here they are not knocking on doors trying to get reelected. I think to me they have their priorities very straight; and thank them for them. Lastly, I really appreciate what I see are the subtle changes in the work of ASMFC in the time that I've served on this Board.

It seemed at the very beginning like it was pure science that drove every single decision that was made here. Now over the past few terms, session I would say, I've seen a more conscious effort to factor in the socioeconomic factors; the humanity and the people's side of it, both for people who work on the water and derive their income do that. I think that to me is a more holistic approach.

But if I had one suggestion I would like to make; and what I've felt for a while is, that this Board really develop a very sound protocol for determining, for the lack of a better term what I call sort of time of death of a fishery. I've seen firsthand, and looked into the eyes of people that are dealing with the loss of the southern New England lobster stock.

Then where I live up in Maine, the North American shrimp fisheries, both of these have determined, I think have been put in more coma status and on life support, with no real confidence I think that they're coming back. I think the power of this group really is to help the state that's suffering with the loss of a fishery; having the backing and support of this

group to say, we've done everything that we can for this. Then let that state manage that fishery in-house as best they can.

I know particularly the efforts that Commissioner Keliher has done in our legislature; to try to get our folks to agree that if indeed a small shrimp fishery were to come back that he could manage that to the best ability for the state of Maine. I would like to thank you all for your hospitality. It's been fun to travel up and down the states and see each of your states at annual meetings. You've been very gracious to me; and I wish you all Godspeed, unless that would require an addendum. Thank you very much. (Applause)

ADJOURNMENT

CHAIRMAN TRAIN: Thank you, Senator Langley; and if there is nothing else under other business I will give you a chance to make one more motion.

MR. LANGLEY: Motion to adjourn.

CHAIRMAN TRAIN: All in favor, yea, good.

(Whereupon the meeting adjourned at 11:30 o'clock a.m. on October 22, 2018)
