PROCEEDINGS OF THE

ATLANTIC STATES MARINE FISHERIES COMMISSION

WEAKFISH MANAGEMENT BOARD

Wentworth by the Sea
New Castle, New Hampshire
October 29, 2019
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ATTENDANCE

Board Members

Sarah Ferrara, MA, proxy for Rep. Peake (LA)
David Borden, RI (GA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Justin Davis, CT (AA)
Bill Hyatt, CT (GA)
Sen. Craig Miner, CT (LA)
Maureen Davidson, NY, proxy for J. Gilmore (AA)
Emerson Hasbrouck, NY (GA)
John McMurray, NY, proxy for Sen. Kaminsky (LA)
Joe Cimino, NJ (AA)
Tom Fote, NJ (GA)
Adam Nowalsky, NJ, proxy for Sen. Andrzejczak (LA)
John Clark, DE, proxy for D. Saveikis (AA)
Roy Miller, DE (GA)
Lynn Fegley, MD, proxy for B. Anderson (AA)
Robert Brown, MD, proxy for R. Dize (GA)
Phil Langley, MD, proxy for Del. Stein (LA)
Pat Geer, VA, proxy for S. Bowman (AA)
Chris Batsavage, NC, proxy for S. Murphey (AA)
Jerry Mannen, NC (GA)
Mike Blanton, NC, proxy for Sen. Steinburg (LA)
Mel Bell, SC, proxy for R. Boyles, Jr. (AA)
Malcolm Rhodes, SC (GA)
Sen. Ronnie Cromer, SC (LA)
Doug Haymans, GA, (AA)
Spud Woodward, GA (GA)
Jim Estes, FL, proxy for J. McCawley (AA)
Rep. Thad Altman, FL (LA)
Marty Gary, PRFC
Derek Orner, NOAA

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

Ex-Officio Members

Erin Levesque, Technical Committee Chair

Staff

Robert Beal
Toni Kerns
Mike Schmidtke
Maya Drzewicki
Katie Drew

Guests

Heather Corbett, NJ DFW
Phil Edwards, RI DEM
Kris Kuhn, PA Fish & Boat
Arnold Leo, E. Hampton, NY
Charles Lynch, NOAA
Steve Murphy, NC (AA)
Jack Travelstead, CCA
Mike Waine, ASA
Jenni Wallace, NOAA

The Weakfish Management Board of the Atlantic States Marine Fisheries Commission convened in the Wentworth Ballroom of the Wentworth by the Sea Hotel, New Castle, New Hampshire; Tuesday, October 29, 2019, and was called to order at 2:15 o'clock p.m. by Chairman John Clark.

CALL TO ORDER

CHAIRMAN JOHN CLARK: I'm John Clark from Delaware; I'll be Chairing the Board today. I would like to second Marty's eloquent thanks to New Hampshire and the Commission for putting together this great annual meeting here at this beautiful spot. If only we can get some sunshine it would really be fantastic.

APPROVAL OF AGENDA

CHAIRMAN CLARK: The first order of business is the agenda. Are there any changes or objections to the agenda? Seeing none, we will take it as approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN CLARK: The proceedings from the February, 2018 Board meeting, are there any changes or objections to that? Seeing none, we will accept those as approved.

PUBLIC COMMENT

CHAIRMAN CLARK: Item Number 3, Public Comment. Nobody has signed up from the public, and I do not see anybody that wishes to speak.

2019 STOCK ASSESSMENT UPDATE

CHAIRMAN CLARK: So, we will now move on to Item Number 4, which it the 2019 Stock Assessment Update and I'll turn that over to Erin from the Technical Committee to brief us on that.

MS. ERIN LEVESQUE: Good afternoon everybody. I'm going to be presenting the latest results of our weakfish stock assessment update. I just want to take a minute to thank everybody on the Technical Committee who contributed to this; Mike and Katie as well as Yan Jiao, who was the modeler for the 2016 Benchmark and ran the models again for this assessment update.

Just basic background, the weakfish cynoscion regalis is a member of the Sciaenid, the drum family. They range from Massachusetts to Florida, primarily however, they are most abundantly found from New York to North Carolina. There is a well-documented hybridization zone, first documented in northern Florida by Tringali.

First, with Cynoscion arenarius the sand sea trout, however there has been hybridization documented with both the spotted sea trout and the silver sea trout farther north along the range. They have a protracted spawning season from March to September, depending on where they are latitudinally, 97 percent of weakfish are mature by Age 1.

They exhibit northerly inshore migration pattern during warmer months and southerly offshore migration pattern in colder months. The data that we looked at for this assessment included three new years since the last benchmark, so the 2016 benchmark assessment the terminal year was 2014, so we added 2015 through 2017. We included all the same indices that were included in the 2016 benchmark assessment, both fishery dependent and independent indices. The biggest change in this assessment update was this new MRIP calibration, which I'll speak to in a moment. All of the ecological reference points were updated with this assessment update.

MRIP historically, effort estimates were derived from the coastal household telephone survey. There were issues with that. Non-reporting, people just not picking up their phones, so the survey effort is now called the Fishing Effort Survey and its mail based in order to fix some of those issues.
For three years these surveys were concurrently held so that calibration index could be

developed. In 2018, this effort survey switched completely to this mail-based-fishing-effort survey. The mail-based survey, the fishing-effort survey gives us much higher estimates of effort, and that translates into higher catch estimates as well.

In 2013, there were improvements made to the access point angler intercept survey. This survey is how we derive recreational catch-per-unit effort, as well as length frequencies of the recreational catch. These data were combined, and the MRIP survey was calibrated back all the way through the historical timeline.

If we look at recreational catch, both the harvest and live release proportion of the fishery, we can see in the yellow we have the un-calibrated survey. In the blue we have the survey that is just calibrated with that Access Point Angler Intercept Survey, and you can see there is very little difference between either the harvest or the live releases.

However, when we look at the newly calibrated MRIP, with these new estimates of effort, we're seeing much higher estimates of both our harvest and our live releases in the recreational fishery. If we look at coastwide percent differences between the calibrated and un-calibrated surveys, we're seeing about a 72 percent increase across the harvest along the whole timeline of this survey, and in live releases we're seeing about 97 percent increase.

However, if you focus primarily on the most recent years, you can see that these percent differences are much higher, anywhere between sometimes 150 percent to 300 percent greater. The commercial landings of weakfish peaked in the early to mid-eighties, and we've seen a decline in commercial landings ever since then, plateauing since about 2003, and remaining low.

Then, similarly with commercial discards, peaking in the early to mid-nineties, and they have remained low in the recent years. If we look at total fishery removals, combining both the commercial and recreational catch, we can see again since 1982, where we were seeing the highest levels of removals from the fisheries, and in the most recent years those fishery removals have decreased significantly.

If we look at this smaller portion, since 2003 a little bit difficult to discern in this graph here. Just blowing it up we can see that the total removals during this period have remained low, but what we are seeing is that the proportion of discards, commercial and recreational is increasing. Commercial discards are considered 100 percent mortality. Any weakfish released alive as a part of the recreational survey, we're assuming a 10 percent mortality rate. We developed catch at age for the fisheries. The first thing we did was developed age-length keys, and we did this by year, season, and region. We did this for the three latest years of the updated survey, so from 2015 to 2017.

We had an early and a late season, and just two regions north and south for a total of 12 age-length keys. Then we had length frequency data, and those were assessed by year, season, region, and then we included the fishery component, commercial versus recreational, as well as disposition, so harvest versus discard.

All of these were combined to look at catch-at-age matrices annually by fishery. Commercial length frequencies were taken from state samples, so state trip ticket reporting systems, as well as National Marine Fisheries Service samples. We had a south region, only North Carolina provided length data, even though Florida did report commercial catch, there were not lengths associated, and then again we have those hybridization issues.

Georgia and South Carolina, neither one of those states have any commercial fishery for weakfish. The north regions were broken into three sub regions, based on the minimum allowable commercial catch size. Discards were reported through the Northeast Fishery Observer Program data.

Recreational length frequencies came again from that MRIP Access Point Angler Intercept Survey. As far as the live releases since 2004, there has been a Headboat Observer Program, so discard lengths were derived from those data. There is a gap between 2000 and 2003, where there were no observer data, so we pulled 2004 to 2008, and then applied those to that little gap period.

From 1982 to 1999, the discards were assumed to be same-length frequencies as the harvest, due to no regulatory discards. If we look at this graph here, so at the top of the Y access, beginning in 1982 to the most recent year of this assessment update in 2017, we can see that both in the commercial and recreational fishery across all ages, so from young of year to Age 6, we're seeing a depletion in the catch amongst all of the ages.

This is a list of the indices of abundance that we used in the update. These are the same that were used in the 2016 benchmark assessment. These you can find in more detail in your report, mostly fishery independent surveys, with the exception of that MRIP Harvest per Unit Effort Survey, so on to our model results.

All of the same models that were investigated in 2000 benchmark assessment were considered in this update. However, we ended up using the Bayesian statistical catch-at-age model, and the model that performed best included a time varying natural mortality component, as well as spatial heterogeneity.

We only used Ages 1 through 6 plus in the model, and we had two fleets considered, commercial and recreational. As a result of the change in the effort estimates through the new MRIP survey, the base run of this model included that new MRIP calibration, but there was as sensitivity run performed with the old, un-calibrated MRIP dataset, to see how they performed against one another. If we look at the fishery mortality as a result of the commercial fishery in the yellow, so that includes all of the data through 2017 with this latest assessment update, but with the old MRIP estimation of effort.

The blue is our benchmark assessment trend line, and in the black that's the latest version of the MRIP estimation of effort through 2017 data, so that we can see what the old MRIP effort estimate is where we see the highest fishing mortality due to the commercial fishery. However, when we apply the new MRIP data, and look at the recreational component of fishing mortality, we're actually seeing that flip.

We're seeing a higher proportion of that total fishery mortality coming from the recreational fishery. When we look at the natural mortality in this model run, we're not seeing much of a difference compared to the 2016 benchmark. Natural mortality is remaining high. Total abundance is still remaining low, really not much difference between the new MRIP estimation and the old un-calibrated survey. We see that same trend in recruitment.

The status of the stock, we have a spawning stock biomass threshold that was defined in the 2016 benchmark assessment at around 6,800 metric tons, and that was redefined with this update at around 6,200 metric tons. If you see that dark gray solid line that is the 6,200 metric ton threshold, and you can see that we have been well below that and we continue to remain well below that threshold level of spawning stock biomass.

If we look at the total mortality, we do have a threshold limit of total mortality, as well as a target. Again that solid gray line is our threshold total mortality, so you can see that in 2017. We're actually approaching the threshold level, but we're still well above that target level of total mortality.

Our stock status, currently we're depleted again. That spawning stock biomass so that's 30 percent of the adult stock and unfished stock under constant natural mortality, mean natural mortality. The stock is still depleted, and that total mortality value we're still exceeding that

threshold level, although you can see that the 2017 value is 1.45, and our threshold level is now defined at 1.43, so just above that threshold level.

Our fishing estimates reference points are actually not biologically applicable at this time, because we're so far below that spawning stock biomass threshold. These research recommendations; these are really summarized kind of succinctly compared to what's in your report. But again, increasing the observer coverage could be really beneficial; especially in helping us better define discards.

Investigating models that incorporate weakfish predation, as well as weakfish diets could be really useful in helping us explain this high natural mortality component. Looking at the spawner recruit relationship and especially the relationships between adult stock size, environmental factors, and year class strength, developing a coastwide tagging program could be useful, especially looking at migration and attraction between northern and southern regions. It would be useful to continue looking at this hybridization issue along the range of weakfish, and the last two research recommendations, in particular our speaking to the model. In the next benchmark looking at not only time varying natural mortality, but age varying natural mortality, as well as incorporating those young-of-year fish into the model. That's all I have.

CHAIRMAN CLARK: Thank you very much, Erin. That news is not surprising, but it's still depressing. Let me open up the floor to questions. Does anybody have questions for Erin?

MR. ERIC REID: My question is about, you are recommending increased observer coverage. What exactly does that mean? I mean I can't imagine there are that many directed trips on weakfish, so are you looking at? What are you trying to look at in that recommendation?

DR. KATIE DREW: This would cover number one the shrimp trawl fleet, so we're interested in, weakfish has the potential to be a significant component of shrimp trawl bycatch, so we would like to get more data on that component, as well as yes there is no directed fishery for weakfish, but I think there has been a concern that weakfish maybe, because they are not allowed to be kept that they're just being thrown back, and we're not seeing that mortality.

Especially south of Cape Hatteras, which the Northeast Fishery Observer Program does not cover. We've seen a little bit of increased discarding in the most recent couple of years, but because the sample size is so low there is a lot of uncertainty about that. We would just like better data on how much mortality is coming from these fish that are being thrown back that we're not seeing.

CHAIRMAN CLARK: Okay I'm going around the table. Next we have Emerson Hasbrouck.

MR. EMERSON C. HASBROUCK: Thank you, Erin for your presentation. Erin, you had a slide up there just briefly, and I didn't quite follow it. It showed commercial F, and part of the graphic was the MRIP, the new and the old MRIP data. I just didn't quite follow what new and old MRIP had to do with calculating commercial fishing mortality.

MS. LEVESQUE: That is a good question. If we look at the component of fishing mortality, and we break it down into commercial and recreational. What we're seeing is as a result of that MRIP calibration, where we're seeing these much higher estimates of effort that is translating into higher estimates of catch on the recreational side.

We're seeing now what was formerly attributed as fishing mortality attributed to the commercial side. That is actually being captured now on the recreational side, so the total fishing mortality hasn't really changed over the most recent years of the survey, but

it's just the proportion is switching more towards recreational. Did I explain that okay?

CHAIRMAN CLARK: Joe, did both you and Tom have your hands up? Okay, let's start with Joe.

MR. JOE CIMINO: Thank you Erin, great job to everyone. Erin, when I was in your place, I used to show all the young-of-the-year surveys, and my old boss Rob O'Reilly would always question why the heck I'm showing that since there seemed to be absolutely no patterns or trends, other than for a while even while the stock was depleted, we saw at least that the young of the year were holding steady. I didn't really see a focus on that here. I was curious, are there any, since there are so many surveys that are tracking this species that are looking better than others. That is my first question. Then if I can just a brief follow up after that thanks.

MS. LEVESQUE: Specific to the young of the year indexes. I think in the most recent years there have been slight upticks in some of the indices, but there are no patterns. It is in the reports, each of the individual indices, but yes there aren't really any patterns to follow there, and so I purposely left that out, only because in terms of conclusion it's pretty hard to wrap up in a 20 minute presentation.

MR. CIMINO: Well thank you, Rob would be proud. I think we really have Rob to thank also, who is very instrumental in getting this model to happen. My other question is on the hybridization. Are you aware of work that may be going forward looking at Georgia, South Carolina, and Florida? I was always concerned that if we weren't looking at that on some regular time period, a five or ten year period that we wouldn't know what was happening there.

MS. LEVESQUE: I did enquire about that with our genetics group, because I know that they had been collecting samples. But when I checked back in with them they looked, and they hadn't collected any samples in 2018. It was my understanding that as recently as 2017 they had collected samples, not only from SEAMAP, but also from the NEAMAP survey.

I'm not sure about CHESMAP, but I know that they had reached out to other states that had fishery independent surveys, and they were requesting some of those samples. I think part of it is that there is no directed funding, so they're happy to collect and hold and catalogue samples often. There was a graduate student that worked on that a bit, and so when I referenced the hybrids, especially between nebulosus and nothus, as well as arenarius that was from some of her work. I think her work went through 2015 samples.

CHAIRMAN CLARK: Next we have Tom Fote.

MR. THOMAS P. FOTE: We always hold up striped bass as the star of the Atlantic States Marine Fisheries Commission, but actually the most important fish in the Atlantic States Marine Fisheries is weakfish and the most humbling also. John Clark knows what I'm talking about, Roy Miller, because there would be no Atlantic Coast Conservation Act without weakfish.

It really was the driving force. Then Congressman Carper, now Senator Carper, former Governor Carper that actually basically incorporated all this to basically get us the Atlantic Coast Conservation Act, so it was because of weakfish. It is also the most humbling, since this is one of the fisheries that I think we did everything right.

We basically got rid of a six inch harvest of the fish. We got rid of the dragger fishery, because it was being used as catfish. Bill Hall got pretty important things in to basically reduce the bycatch, also took away the fact that you could use trash fish for bait for other things that boats could turn in. We did everything right, and the weakfish start coming up, and we're saying we're doing a great job. The humbling part was we'll say they spit at us, and they went the other direction. I have no reason in understanding why. I think I know why, and

every time I see, and this is where we kept the natural mortality. Every time I see a blitz going on of where there is bluefish or striped bass and everything, and all of a sudden I stop pulling the bluefish, and I see what is that strange tail he's spitting out?

That's not Atlantic herring or herring. Then I realize when I put the head and the tail together it is weakfish. It really is, they just devour the heck out of it, whether it's bluefish or striped bass. I had to say that. My question is when I'm looking at these MRIP figures; I realize that because the catch is so low.

That is the one thing I'm missing in this is what our catch was back in the nineties, because we're all looking at 2009, so we're looking at thoroughly a collapsed fishery, when the numbers were all the way up here in certain periods of time. It doesn't require much difference of the numbers in my estimation to go from a 70 percent variable to a 40. I mean it could be a couple of thousand fish, am I right or wrong?

DR. DREW: Yes basically those increased MRIP numbers 200, 300 percent is on a very small amount of removals. The trend is exactly the same, really high and really low. It hasn't miraculously made more weakfish to catch.

CHAIRMAN CLARK: Next question we have is from Chris Batsavage.

MR. CHRIS BATSAVAGE: Thank you Erin for the presentation. Part of my question was answered with Joe asking about trends in juvenile abundance indices. Looking at the commercial discards that were somewhat higher in the most recent years, I was wondering if the discards, the increasing commercial discards coincide with any increasing trends in survey abundance estimates.

The adult ones for instance, or could this be a result of the lower estimates of natural mortality in the last few years. That might be a hard one to answer, but I just kind of saw where there may be fewer fish dying of natural causes that are potentially being discarded that we didn't see several years ago. Any information on that would be appreciated, thanks.

MS. LEVESQUE: Chris, I did look at actually some of our SEAMAP data, and we did have some higher catches, higher than normal catches, especially in 2015. But again there is a lot of error associated with that because if we look at the CPUE from that year, and I think in particular it was in the fall, and young of year would have been represented. It was just from a very select few trawls that then inflated. Again it's still kind of difficult to say whether those are accurately reflected.

CHAIRMAN CLARK: Follow up, Chris?

MR. BATSAVAGE: Yes, and again this may be a speculative part of my question. Is there a chance that with natural mortality decreasing that it could be resulted in more commercial discards? Is more fish available to be caught and discarded than we may have seen in previous years with higher natural mortality?

DR. DREW: That's one possibility. The other thing that we didn't talk about a lot in this presentation, but it's a little more in the report is that we're not super confident about that decrease in natural mortality in the last couple of years. Like if you look at the assessment update, it said the exact same thing.

Oh, it's coming down in recent years. But you look at the benchmark, it was also saying oh, we're coming down, and now you look at it, we're back up. There may be a retrospective pattern of the model isn't seeing those year classes come in and then die off super-fast, so it sees them come in, and the most recent couple of years it looks like everything's great, natural mortality is coming down.

Then, as we add a few more years of data and we see those year classes decrease faster than they should, the model comes back and says whoops. I was wrong, it's actually still up here,

which is why I think, when we did the benchmark we wanted to come back and do an update in a couple of years to say is this declining trend real, or is it retrospective pattern?

Right now it looks more like a retrospective pattern. We're seeing the same thing again, and that's part of I think why Yan Jiao recommended that we do some age-specific modeling for the next benchmark, to maybe get around that problem issue, especially if that is highest on the younger age classes. But it's possible there are more of them for discards, but maybe not.

CHAIRMAN CLARK: I have Roy Miller then Lynn Fegley.

MR. ROY W. MILLER: Thank you, Erin. I was wondering if I could go back to a point that Katie made, if I may, to get some additional clarification. I think you said something to the effect that the bycatch mortality in the southern portion of the range may be problematic, if I've stated that accurately.

Is there evidence of migration to the Mid-Atlantic from those weakfish that occupy the southern portion of the range? By southern portion I presume you mean below Hatteras. Is there evidence to indicate migration that far north? If so, is there another mechanism governing the high Z rates for the stocks that occupy the Mid-Atlantic to the northern part of the range of the weakfish? Thank you.

DR. DREW: Sure. Yes the first part of the question, below Cape Hatteras the southern region, there is no observer coverage from the Northeast Fishery Observer Program, and there really isn't a comparable program over that region, so the discard estimates are limited spatially. We do see migration, and there is genetic evidence that they are just a single stock that is kind of moving and hanging out together. They are vulnerable to fisheries down there. The same fish are vulnerable to fisheries further north, so it is a mixing population.

In terms of what's causing the high total mortality rate, I think this model doesn't tell us. We don't really know for sure. Some of the recent work by Jacob Krause out of N.C. State University has suggested that it is predation mortality, and he specifically called out bottlenose dolphin as one of the major potential predators. But we could also, you know there is also unexplained mortality from the shrimp trawl fishery that we're not capturing with our data, unexplained discard mortality that is not being observed and put into this model as another potential total mortality source. But there is a lot going on.

CHAIRMAN CLARK: Lynn.

MS. LYNN FEGLEY: Thank you, Erin for the presentation. As a manager, I'm just trying to sort out, you know we manage under Z, under total mortality, and we're above that. Then we know that our natural mortality continues to sky rocket, and our F appears to be just kind of waffling around. Really my question is I'm assuming that that F level is a pretty low proportion of the Z. I'm just trying to understand, you know what the proportion of fishing mortality to total mortality is. I mean is there anything that can even be done by controlling F at this point?

MS. LEVESQUE: There really isn't, and because our spawning stock biomass is still so far below that threshold level. Really there is really nothing that can be significantly done with that. In fact leaving that alone is helping to protect the stock. Hopefully we'll see increases in spawning stock biomass.

CHAIRMAN CLARK: Any other questions from the Board? Okay, I see Tom.

MR. FOTE: Since I made the motion, I don't remember about ten years ago or whatever that we basically go from one weakfish recreational and 100 pound bycatch, and I did that so at least we would have some biological data. Should we stay there? Without that we don't really have any catch data at all, and we

can't see where the size owed. Will it do any good if we actually went to 0 and 0?

CHAIRMAN CLARK: Tom, that's the next item on the agenda is to move to. Did you have any other questions? Oh, I'm sorry, I just wanted to follow up. I had a question myself about the assessment, so I should have made that clear, sorry. Did you have another question about the assessment?

MR. FOTE: No.

CHAIRMAN CLARK: I was just following up on the whole natural mortality point. Katie you just mentioned Jacob Krause's work. Bottlenose dolphin of course was the number one predator he found on those, and we can't do anything about that. But Number 2 was striped bass at 21 percent of the mortality.

You mentioned yesterday with menhaden, when we start getting into the assessments, looking at multiple species that will obviously be a lot more controversial, I think if we started talking about limiting the size of the striped bass stock to allow us to have a larger stock of weakfish. But those are the type of relationships I presume we want to look at going forward.

DR. DREW: Yes. Not to divert us too far into menhaden territory, but when we get into ecological reference points it's not just about the prey, it's also about the predators and their interactions. We do include weakfish as both a predator and a prey species in our ecological modeling, so that we recognize that striped bass are feeding on juvenile weakfish. Bluefish gets in there too, it's a very complicated system, and so it's not just a matter of stop fishing on menhaden and everything is great. These predators also have their own interactions independent of menhaden as well.

CHAIRMAN CLARK: You have a question about the assessment, Arnold? Okay. Please come to the public microphone.

MR. ARNOLD LEO: Yes, I'm Arnold Leo; I represent the fishing industry of the town of East Hampton on Long Island. I have a question concerning the determination of the spawning stock biomass threshold. In the early eighties I was fishing three pound traps off the east end of Long Island. There was the most amazing and colossal run of a weakfish year class.

Year after year the fish would appear. I mean we're talking about really huge catches, like two tons per pound trap overnight. Year after year they would get larger, larger, larger, until finally, I forget the exact year. We were catching 16, 17 pound weakfish. It was utterly amazing. We were still catching a couple of tons per pound trap overnight when the run was going on.

The next year poof, nothing, what was left of the year class had died off, obviously 17 pounds is about the end of their life cycle. My question is when you determine the threshold for the spawning stock biomass, are you looking at a year class like that to determine, because that year class was so incredibly exceptional that if we see it once every 50 years, it would be amazing?

DR. DREW: When we sort of project what say 30 percent of SSB under average natural mortality would be we're using average recruitment. There is the potential for high year classes and the potential for low years classes, so it's not based on sort of the best case recruitment scenario, it's based on a distribution of average recruitment.

MR. LEO: Yes, thanks.

CHAIRMAN CLARK: Thank you for the excellent presentation, Erin, and thanks for all the questions.

MANAGEMENT RESPONSE TO STOCK ASSESSMENT UPDATE

CHAIRMAN CLARK: Now, we'll move on to Number 5 and I'll get back to Tom on

Management Response to Stock Assessment Update, and Tom will you proceed again?

MR. FOTE: Yes as I said before, I was the one that made the motion years ago to basically stay at one fish and 100 pound bycatch, so we could get some fisheries data. Keep going even if the stock is that low. I still think it's really important, but I'm trying to get the advice of the Technical Committee. Does it make really any difference if we basically eliminated the one fish and the 100 pound bycatch, because the numbers are so small? I'm not sure. I'm asking for your opinion.

DR. DREW: We haven't done any projections with this model under different scenarios, so we can't say right now. I think if the Board is interested in looking at that we could certainly look at that. The harvest is very low, and it's a small component of the total mortality, so I don't think it's going to save anything. But we could look at sort of what would be your expected or unexpected gains from that kind of an approach, if the Board is interested in looking at that.

CHAIRMAN CLARK: As Tom pointed out, the management since, what is it? Since 2009 we've been at the one fish possession limit recreationally, and the 100 pound commercial limit? Does anybody else from the Board have any thoughts on changing management at all? I mean obviously we don't have to do anything, but it's just if there are any ideas. Looking around, I see none so we'll move on. Oh, I'm sorry Chris; I didn't see your hand there.

MR. BATSAVAGE: No interest in change, and I think unfortunately there is not much more we can do. If the stock does come back, I seem to get the impression that it might be the recreational and commercial fisheries that pick up on that signal first. At least the incidental catch that is allowed right now may allow the fishermen to see that to where we can maybe get a better handle on what the stock is doing.

CHAIRMAN CLARK: Roy.

MR. MILLER: Just to focus in a little bit on the question you asked, John. I was wondering if Erin or Katie has an opinion. It's my perception that young-of-year indices have remained relatively status quo, with some annual fluctuations, at least in the Delaware estuary, an important component of the spawning nursery ground population. Assuming the young-of-year indices have remained status quo, the fish seem to reach one year of age and then disappear. What does that suggest to us? Does that help us focus in on any potential management direction?

CHAIRMAN CLARK: Bottlenose dolphin harvest.

MS. LEVESQUE: I would just say that that is the importance of moving forward with this ecological monitoring, so that we have potentially a better handle on what is happening there, and also the age. If there is good recruitment you see good year class strength, even at Age 1 fish.

Even though the fish are maturing at Age 1, compared to you know Age 2 and Age 3 fish, they are much less fecund. They're still even at Age 1, they're not contributing like a 2 or 3 year old weakfish would be. But I think potentially getting a handle on some of those more complex ecological models would give us some insight to what is happening there.

CHAIRMAN CLARK: Thank you and I was just joking about the dolphins. Lynn.

MS. FEGLEY: I do not want to be on that Board. Just back to the bycatch issue and the observer coverage, a question would be, you know that is a recommendation of the assessment is to really increase that coverage, particularly south of Hatteras. Can you give some idea of what would be the process? Who would be the people who could potentially develop an effective design for that and some estimate of cost?

DR. DREW: We've actually had some success in the ACCSP. Basically NEFOP has a great design,

and further south, I think extending that further south would be great, and that's where the cost would be. I know North Carolina has done some of their own bycatch monitoring, although I think that is primarily inshore versus offshore, but that is still valuable information. I think, you know do we want to funnel money to North Carolina or to some of the other southern states to enhance that monitoring? There is a Southeast Fisheries Observer Program on shrimp trawls, but the samples are very limited in the South Atlantic compared to the Gulf of Mexico, and again the Northeast Program has great design.

All of those have a great design, it's just a matter of let's increase the sample size in the existing programs that we have. ACCSP did funnel some money to do that in the Mid-Atlantic region for a few years, and we did get better discard numbers for some of our species, including weakfish. But that is not really a long term monitoring program.

CHAIRMAN CLARK: Toni, did you have something you wanted to add?

MS. TONI KERNS: It was to that point that I think it is an important recommendation. We, or at least I have been hearing anecdotally from some fishermen that they are starting to see weakfish, and what can we do about it? From my discussions with Katie and Mike, our only way to really address that issue is to get increased sampling.

We can get a true handle on what is going on in those discards, instead of just seeing more. You know right now it is a little bit more noise, and so we can't give a definitive answer. Without having that increase, we're still going to not be able to answer those questions to the industry. I think it is something important for the Board to consider.

CHAIRMAN CLARK: Do we have any other comments? Chris.

MR. BATSAVAGE: This is to the point of observer coverage south of Cape Hatteras. Katie is right; all of our state observer program work is in estuarine waters. However, I think the Northeast Observer Program does go south of Hatteras in North Carolina.

I know the observer teams from the Northeast have come down to talk to us in Beaufort, for instance, and checking some of the places where people fish. I don't know how far down they go. But I think there is a little bit of observer coverage from NEFOP, at least through North Carolina, so that stuff is there. But you know again, how much coverage relative to how much effort is probably still the question.

CONSIDER APPROVAL OF THE 2019 FISHERY MANAGEMENT PLAN REVIEW AND STATE COMPLIANCE REPORTS

CHAIRMAN CLARK: Seeing no more comments, we're going to move on to the next topic, which is Consider Approval of the 2019 Fishery Management Plan Review and State Compliance reports, and Mike has a presentation to go with that.

DR. MIKE SCHMIDTKE: The Weakfish Plan Review Team met earlier this month to conduct the 2019 FMP Review, and I will go through that now. First looking at the status of the fishery, in terms of the landings, one thing to note throughout this presentation is that the recreational data being presented is the newly calibrated FES data, so that has already been incorporated here.

As total harvest peaked in the 1980s, but has been on a pretty significant decline since then. In 2018 the total harvest was about 228,000 pounds, a 62 percent decline from 2017, and the lowest combined harvest in the time series. The commercial fishery comprised 45 percent of that total at 102,000 pounds. This is the lowest commercial harvest on record, and it came primarily from North Carolina, New York, and Virginia. The recreational fishery was 55

percent of the total poundage, and that was at 126,000 pounds. This was the lowest recreational harvest on record, and that came primarily from North Carolina, New Jersey, and South Carolina.

Looking at the recreational sector specifically, the harvest in terms of numbers of fish was about 90,000 fish. That was also the lowest on record. The recreational releases increased in the 1990s, but they have declined since then, and they have been low and without really strong trend over the last ten years.

Recreational releases in 2018 were about 861,000 fish. This is the lowest number of releases since the coastwide bag limit went into effect, and these releases were primarily from North Carolina, Virginia, and New York. Recreational average weights historically have trended towards larger fish to the north.

In 2018 there was a little bit of an interesting trend, where this remained true with larger fish to the north than to the south, but we saw for several of the northern states they had smaller weakfish than usual, and several of the southern states had larger weakfish than usual. Addendum I to Amendment 4 lists out the biological sampling requirements for weakfish. States are required to collect six lengths for every commercial metric ton, and three ages for every total metric ton.

There were three states that the PRT noted in 2018 that did not meet the requirements. New York, this was the third consecutive year that they had not met their sampling requirement. New Jersey and North Carolina, this was their first year in recent history. One thing that the PRT does note, related to the requirements as they're spelled out in this year's review is that the MRIP transition did occur in 2018, which likely would have happened after many of the states made their sampling plans.

This increased the number of age samples that were required of the states, and so from the Plan Review Team perspective, we weren't ready to recommend any of these states out of compliance with kind of that moving of the goalposts, so to speak, with the MRIP transition. But we just did want to note that moving forward that states should begin to plan their sampling around the newly calibrated MRIP numbers. Overall the PRT recognizes the difficulty in attaining samples with the low harvest of weakfish.

But we would recommend that New York in particular, since they have missed their requirements for the last three years, to evaluate whether increased efforts could increase their numbers of weakfish samples. Again we don't note it as a cause of concern that we would recommend for any type of compliance issue, but it is something that we noted. Finally, related to biological sampling, and I'll bring this up in our final recommendations a little bit later.

But noting the MRIP transition and the increase to the requirements, something that the Board may want to consider is whether the age requirement, which is based off of the total landings, whether the age requirement of three ages per metric ton is still an attainable goal, in light of the increase in the recreational estimates. In 2010, the recreational and commercial management measures of Addendum IV replaced management triggers from Addendum II. But since then the PRT has continued to evaluate the previous management triggers as they provide some perspective on a year-to-year basis on the magnitude of landings. The first of these triggers dictated that the commercial management measures were to be reevaluated if the coastwide commercial landings exceeded 80 percent of the mean landings from 2000 through 2004, which were about 3 million pounds.

This trigger obviously was not met with about 100,000 pounds of commercial harvest in 2018. Secondly, commercial and recreational management measures were to be reevaluated if any single-states landings exceeded its

previous five-year mean by more than 25 percent in any single year. The only state for which this occurred was Florida in 2018.

Given the small magnitude of Florida's landings, and them being a *de minimis* state, the Plan Review Team does not consider this increase to be a cause for concern. Here we see a summary of the management for weakfish. Right now weakfish are being managed under Amendment IV, with four associated addenda, the most recent of which instituted the one-fish bag limit for the recreational sector, and the 100 pound trip limit for the commercial sector, as well as establish the reference points that are being applied today.

One thing to note related to the stock assessment update is that the reference points spelled out in Addendum IV are able to accommodate the numerical changes that are done in the assessment update, as these are relative reference points related to a percentage, rather than a specific number.

Noting the status of the stock, the last benchmark was conducted in 2016, and you just heard everything about the 2019 stock assessment update with the stock being depleted, and total mortality still being above the threshold value. Amendment IV permits states to request *de minimis* status, which exempts them from the biological sampling requirements.

They get the status if for the last two years their combined average commercial and recreational landings by weight constitute less than 1 percent of the coastwide commercial and recreational landings for the same two-year period. We received requests for this status from Massachusetts, Connecticut, and Florida. All of these states meet the criteria, and are recommended for *de minimis* status.

The PRT found that all states were in compliance with the terms of Amendment IV, and the associated addenda, and would recommend that states be found as such. We also had a few other recommendations that are listed in the FMP Review report, and I'll go through a few of those here. The consideration of using the biological reference points from the update that is already accomplished, as those reference points are related to percentages rather than the actual numbers.

Secondly, considering updating the management triggers established in Addendum II to Amendment IV. Right now the plan Review Team is just looking to the Board for some direction related to those Addendum II triggers. Right now there is nothing in place for weakfish that would trigger management or initiate any type of changes, or look at the fishery on a year-to-year basis. The PRT is just looking to the Board to see if those triggers should be reported on in the same way, and used just for informational purposes. Should we stop reporting on this information? In the current form it doesn't seem very useful as the triggered management actions would occur at increased harvest levels that are not likely to be hit. From the state perspective there could be triggers related to numerically smaller annual fluctuations, or the Board could consider tasking the TC with coming up with new, more useful triggers for this fishery.

Another recommendation that we had was for the Board to consider updating age sampling requirements to reflect the MRIP data update, and this is something that is really a question to the states, of whether the three age-per-total metric ton of harvest is an attainable sampling requirement.

One of the examples where it really came into play this year had to do with North Carolina. If North Carolina were evaluated under a requirement based on the telephone survey, they would have met their requirement. That survey would have required 142 ages, they collected 170, but with the MRIP update that requirement changed to 192.
That gives an idea of the magnitude of change in the sampling requirements there. There is question of whether that is still a reasonable

goal or not. Finally, the PRT would recommend that the Board approve the 2019 weakfish FMP Review, State Compliance Reports, and *de minimis* status for Massachusetts, Connecticut, and Florida, and with that I can take any questions.

CHAIRMAN CLARK: Would it take an addendum to change those management triggers and the age sampling requirements?

DR. SCHMIDTKE: Yes, it would take an addendum for either of those.

CHAIRMAN CLARK: Okay thanks. Are there any questions for Mike from the Board? Joe.

MR. CIMINO: Yes, I think I just want to stay along those lines, so if that is the case would we be looking for a motion then to, I guess get a Plan Development Team working on that first, and then my other question is in reference to the first. Is that also something that has to happen through an addendum, or can that be done by motion, consider the use of biological reference points?

DR. SCHMIDTKE: The first recommendation was something before I got a little bit more clarification on how that worked, but the reference points of the update are assumed into place, because they are using the same methods that were spelled out in Addendum IV.

CHAIRMAN CLARK: Any other questions for Mike on the Plan Review? Does anybody have any suggestions about updating the management triggers, updating the age sampling requirements? Eric.

MR. ERIC REID: Rhode Island met its requirement, but that was a real struggle. You know if we have to do more, I don't know if we're going to make it. I honestly don't know. You know if you're going to start taking samples from the recreational fishery because of MRIP data, if that is the intent, you know that is so opportunistic you're going to fail miserably there. I would just as soon see it stay the way it is, and just hopefully the states that are a little bit short will pick up the game, because there is just no fish there to do it.

CHAIRMAN CLARK: Just from what you said and what Joe said, is the consensus to leave things alone, or should we actually make these changes just to stay in compliance, have an addendum that actually reflects the new reality of what the sampling is? What we need to do is of course to accept the FMP Review for 2019, but we could also plan to move ahead on an addendum to address those sampling issues, if the Board so desires correct, Mike? Okay that is affirmative. Tom.

MR. FOTE: The recreational person that basically supplied 90 percent of our samples on weakfish passed away a couple years ago. We really haven't found anybody that just directly basically does that to produce the samples, with the low stock numbers that we have and the low participation by any recreational.

It's really an exceptional catch to get a weakfish, and that people are not really aware that we need samples. The recreational sector is not bringing them in, like they used to do. The commercial sector, I don't know. It's up to Joe whether you get it, but I don't think we can increase the numbers right now. We had it difficult when we had the high numbers, so I think we should leave it as it is.

CHAIRMAN CLARK: Mike is going to clarify some points.

DR. SCHMIDTKE: What we're recommending is not to increase the requirement. Right now what happened is the MRIP numbers increased, and the number of samples that need to be collected are based on the MRIP numbers, so because the MRIP numbers increased the number of samples increases as well.

Kind of the question that was being asked, and if the Board wants something that is more of the way that it's been going, rather than moving with MRIP because of that increase, then the

Board would need to make a decision to reduce the sampling requirement, to a level that was more proportional to what it has been, if that makes sense.

CHAIRMAN CLARK: Maureen and then Joe.

MS. MAUREEN DAVIDSON: Under the current requirements it is very difficult for New York to meet the numbers of samples that we're supposed to collect at this time. Just because MRIP has shown that the numbers have gone up, and that the number of samples has to go up correspondingly is not going to change the amount of weakfish we're actually finding that we're able to sample. I would recommend that we have to reduce the number of samples we have to take based on the new MRIP numbers. Did I get that out right?

CHAIRMAN CLARK: Joe.

MR. CIMINO: I am not all that worried about characterizing the harvest anymore. I think the two things that we're being asked here. I don't think either of them is appropriate anymore, so I would like to see an addendum put in place that would kind of decouple us from the management triggers in Addendum II, and also to have either the PDT or the Technical Committee look at some level of representing the age classes.

I think samples from fishery independent should also count towards that collection, but just something. I wouldn't want us to lose the ability to still model by each individual age. I think the sampling that is in place right now for the catch at some level is probably enough. Although to characterize the catch for a catch at age, but I don't think that is nearly as important right now. It's just the ability to track age classes in this fishery.

CHAIRMAN CLARK: Mike, you have a response for that?

DR. SCHMIDTKE: Related to the management triggers. If it is the will of the Board that you all don't find the exercise of bringing up the Addendum II triggers useful, then that simply tell the PRT don't include that in the FMP review anymore, and we can do that.

As far as the biological sampling requirements that would require an addendum, and it also would require probably some work of balance, you know and communication with the TC balancing assessment needs versus the state's ability to meet the assessment needs, from a sampling point of view.

CHAIRMAN CLARK: Well it's sounding to me, and I don't know if everybody is getting the same impression that we need a motion. A, to accept the FMP review, but also probably to ask that a Plan Development Team be formed to develop a new addendum to address these issues, because it seems like one way or the other we're going to have to go in that direction. Can we get a motion for the FMP Review?

MR. FOTE: So move. I'll move that we accept the report. You probably have some language there, yes. Do I need to read that? Good, my eyes are blurry today. **Move to approve the 2019 weakfish FMP Review, State Compliance Reports and the *de minimis* status for Massachusetts, Connecticut, and Florida.**

CHAIRMAN CLARK: Thanks, do we have a second, Doug Haymans**? Is there any objection to this motion? Seeing none, the motion is accepted and approved.** Can we have a motion to proceed? Oh, Toni.

MS. KERNS: Perhaps a step forward would be to ask the Technical Committee to provide information to the Board, or Technical Committee/Stock Assessment Committee on what is necessary for sampling for the assessment. What kind of information do they need, and how does that differ from what are the requirements in the plan right now? Then let the Board evaluate that and then we could consider starting an addendum. But first let's let you guys know what is on the table.

CHAIRMAN CLARK: For what you're saying we don't need a motion for that.

MS. KERNS: Just tasks.

CHAIRMAN CLARK: Is that the consensus of the Board that that is the direction we should go in then is to task the TC and the Stock Assessment Committee to let the Board know what is needed, in terms of the data to produce the next assessment. Okay, well that is simpler than proceeding with an addendum, great. We have a question from Lynn Fegley.

MS. FEGLEY: I just need to get some clarity, and I may have fallen asleep. I apologize. The management trigger issue is separate from the sampling issue, and that's Mike what you were saying. We have a choice, we can either get new triggers developed in an addendum, or we can just say you know what let's not report those anymore, let's leave them as they are. I'm just trying to get a sense of where we're going with the trigger part of this.

DR. SCHMIDTKE: The triggers have been reported on, from what I could tell, since before my time with the Commission, and I've just kind of continued that with the Plan Review Team, them reporting that information to the Board. But it is for informational purposes only at this point.

Because the Addendum IV measures, when the commercial 100 pound limit and the one fish recreational limit went into place, those replaced those management triggers. Yes that was more for informational purposes, and the impression that I have from the Board today is that those don't need to be included in the FMP Review anymore.

ELECT VICE-CHAIR

CHAIRMAN CLARK: Okay any further discussion of this topic? Seeing none we are going to move on to the next one, which is to elect a Vice-Chair, and I believe Mr. Woodward has a nominee.

MR. A.G. "SPUD" WOODWARD: I do, thank you Mr. Chairman. I would nominate Doug Haymans to serve as Vice-Chair of the Weakfish Management Board.

CHAIRMAN CLARK: Do we have a second, Justin Davis, and so we have a nominee that has been seconded. I'm sure there are no other nominees, and Doug you are elected. You would like to make a statement?

MR. DOUG HAYMANS: I'm just glad that I gave the ladies at the front table one chance to get my name right before the motion came up.

OTHER BUSINESS

CHAIRMAN CLARK: At this point now we are going to move on to other business and Chris Batsavage has an issue to bring up.

COMMERCIAL DISCARDS IN NORTH CAROLINA

MR. BATSAVAGE: I just wanted to update the Board on some work that our staff has done looking at commercial discards in North Carolina. We again received more reports of weakfish discards from the ocean gillnet fleet this past winter. I think this is the fourth year in a row of reports. The reports of discard events occurred over a longer period of time this past winter.

Our staff analyzed the Northeast Observer Program data, and state landings data from this fishery since 2009, and found considerable increase in trips discarding weakfish in excess of the 100 pound trip limit, and a number of trips landing the 100 pound trip limit. The average catches of weakfish were considerably higher in 2019 compared to earlier years. However, more time is needed to determine if this is a consistent trend, since it was so much different than what we've seen in previous years.

Our staff plans on looking at this data annually to see if this trend continues, so this is just an update to the Board, with a suggestion that other states might want to look at the Federal Observer Data off their coast to monitor trends

in weakfish catches, especially if reports of increased catches increase from the commercial fisheries up there.

CHAIRMAN CLARK: Didn't North Carolina and Virginia both look at this issue a couple of years ago, and at that time as you said there did not seem to be any noticeable increase?

MR. BATSAVAGE: Yes the reports were coming from North Carolina and Virginia at the same time, and the TC was tasked with looking at trends in discards and catches along the entire coast, and didn't really pick up any trends other than I think the last year or two that the number of trips landed 100 pounds of weakfish increased in Virginia and North Carolina.

We decided to just look at the North Carolina ocean gillnet fleet, to see if there is just a higher availability there compared to other parts of the coast, since weakfish tend to be more abundant in North Carolina and elsewhere in the last 10-15 years. As I said, we did see a considerable increase, but we're going to need to monitor this a little more closely to see if this continues. I'll keep the Board posted on any updates.

CHAIRMAN CLARK: Does anybody have any questions for Chris? Seeing none that concludes our other business, in which case all we have left is to adjourn.

ADJOURNMENT

CHAIRMAN CLARK: Seeing no objections to adjourning, we are now adjourned, thank you.

(Whereupon the meeting adjourned at 3:30 o'clock p.m. on October 29, 2019)