

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC STRIPED BASS MANAGEMENT BOARD**

**The Ocean Place Resort
Long Branch, New Jersey
Hybrid Meeting**

November 7, 2022

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1. **Approval of Agenda** by consent (Page 1).
2. **Approval of Proceedings of August 2, 2022** by consent (Page 1).
3. **Main Motion**
Move to approve Draft Addendum I to amendment 7 to the Interstate Fishery Management Plan for public comment (Page 24). Motion by John Clark; second by Pat Geer. Motion amended.
4. **Motion to Amend**
Move to amend to add “if the stock is overfished, apply a 5% conservation tax to address discrepancy that a pound of striped bass quota is not equal across all states.” This would apply to options B and D (Page 25). Motion by Megan Ware; second by Doug Grout (Page 26). Motion carried without objection (Page 27).
5. **Main Motion as Amended**
Move to approve Draft Addendum I to amendment 7 to the interstate fisheries management plan for public comment, and add if the stock is overfished, apply a 5% conservation tax to address discrepancy that a pound of striped bass quota is not equal across all states. This would apply to options B and D. Motion carried without objection (Page 28).
6. **Move to approve Craig Poosikian representing Massachusetts to the Striped Bass Advisory Panel** (Page 28). Motion by Ray Kane; second by Justin Davis. Motion carried without opposition (Page 28).
7. **Move to adjourn** by consent (Page 28).

ATTENDANCE

Board Members

Megan Ware, ME, proxy for P. Keliher (AA)	Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)
Steve Train, ME (GA)	Kris Kuhn, PA, proxy for T. Schaeffer (AA)
Cheri Patterson, NH (AA)	Loren Lustig, PA (GA)
Doug Grout, NH (GA)	G. Warren Elliott, PA (LA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	John Clark, DE (AA)
Mike Armstrong, MA, proxy for D. McKiernan (AA)	Roy Miller, DE (GA)
Raymond Kane, MA (GA)	Craig Pugh, DE, proxy for Rep. Carson (LA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Mike Luisi, MD, proxy for L. Fegley (AA Acting)
Jason McNamee (AA)	Robert Brown, MD, proxy for R. Dize (GA)
David Borden, RI (GA)	David Sikorski, MD, proxy for Del. Stein (LA)
Eric Reid, RI, proxy for Sen. Sosnowski (LA)	Pat Geer, VA, proxy for J. Green (AA)
Justin Davis, CT (AA)	Bryan Plumlee, VA (GA)
Bill Hyatt, CT (GA)	Chris Batsavage, NC, proxy for K. Rawls (AA)
Sen. Craig Miner, CT (LA)	Jerry Mannen, NC (GA)
Jim Gilmore, NY (AA)	Marty Gary, PRFC
Emerson Hasbrouck, NY, (GA)	Dan Ryan, DC, proxy for C. Rese
Joe Cimino, NJ (AA)	Rick Jacobson, USFWS
Tom Fote, NJ (GA)	Max Appelman, NMFS

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

Ex-Officio Members

Nicole Costa, Technical Committee Chair	Jeffrey Mercer, Law Enforcement Representative
Louis Bassano, Advisory Panel Chair	Mike Celestino, Stk. Assmnt. Subcommittee Chair

Staff

Bob Beal	Katie Drew
Toni Kerns	Madeline Musante
Tina Berger	

Guests

Jason Avila	Jeff Brust, NJ DEP	Caitlin Craig NYS DEC
Linda Barry, NJ DEP	Mike Celestino, NJ DEP	Jessica Daher, NJ DEP
Louis Bassano, NJ	Blane Chocklett	Bob Danielson
Rick Bellavance	Matt Cieri, ME DMR	Maureen Davidson, NYS DEC
John Bello	Germain Cloutier	Patrick Denno
Jessica Best, NYS DEC	Phil Coates	Even Dintaman
Kurt Blanchard, RI DEM	Christine Condon, Baltimore Sun	Chris Dollar
Christopher Borgatti	Margaret Conroy, DE DFW	Russell Dize, MD (GA)
Delayne Brown, NH F&G	Matthew Corbin, MD DNR	Eric Durell, MD DNR
Simon Brown, MD DNR	Heather Corbett, NJ DEP	Wes Eakin, NYS DEC

Guests (continued)

Arisa Edwards, CBF	Casey Marker, MD DNR	Patrick Rudman
Peter Fallon, Maine Stripers	Dan McKiernan, MA (AA)	Brandi Salmon, NC DMF
Tony Friedrich, SGA	Kevin McMenamin	McLean Seward, NC DENR
Tom Fuda	Jeff Mercer, RI DEM	Paul Shafer
John Gans, TRCP	Nichola Meserve, MA DMF	Scott Simms, MD DNR
Steve Garafalo	Mike Millard	Ethan Simpson, VMRC
Lewis Gillingham, VMRC	Steve Minkinen, US FWS	Amanda Small, MD DNR
Angela Giuliano, MD DNR	Derek Monfort	Ross Squire
Willy Goldsmith, SGA	Gabriel Montemuro	David Stormer, DE DFW
Kurt Gottschall, CT DEEP	Chris Moore, CBF	ElizaBeth Streifeneder, NYS DEC
Tyler Grabowski, PA F&B	Brandon Muffley, MAFMC	Kevin Sullivan, NH F&G
Brendan Harrison, NJ DEP	Kirby Rootes-Murdy, USGS	Colin Temple
Helen T. Heumacher, USFWS	Brian Neilan, NJ DEP	Michael Toole
Jaclyn Higgins, TRCP	Gary Nelson, MA DMF	Taylor Vavra
Peter Himchak, Cooke Aqua	Robert Newberry	Beth Versak, MD DNR
Mark Hoffman, CBC	Thomas Newman	Ralph Vigmostad
Jeffrey Horne, MD DNR	Jeffrey Nichols, ME DMR	Mike Waine, ASA
Harry Hornick, MD DNR	Tyler O'Neill	William Wayman, US FWS
Jesse Hornstein, NYS DEC	Zane Oliver	Craig Weedon, MD DNR
Bob Humphrey	Jeff Panzo	Tim Wheeler, <i>Bay Journal</i>
Jim Hutchinson, <i>The Fisherman</i>	John Papciak	Peter Whelan
Taylor Ingraham	Charles Paullin	Holly White, NC DENR
Gary Jennings, FL (GA)	Michael Plaia	Logan Williams
Dylan Jewell	Nicholas Popoff, US FWS	John P. Williams
Carrie Kennedy, MD DNR	Will Poston, SGA	Charles Witek
Gregg Kenney, NYS DEC	Marcus Quenzer	Steven Witthuhn
Jared Lamy, NH F&G	Michael Quinan	Michael Woods
Brooke Lowman, VMRC	Jill Ramsey, VMRC	Chris Wright, NOAA
Mike Luisi, MD DNR	Kathy Rawls, NC (AA)	Erik Zlokovitz, MD DNR
Shanna Madsen, VMRC	Jason Rock, NC DENR	Renee Zobel, NH F&G
John Maniscalco, NYS DEC	Mike Ruccio	

The Atlantic Striped Bass Management Board of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room in The Ocean Place Resort via hybrid meeting, in-person and webinar; Monday, November 7, 2022, and was called to order at 3:00 p.m. by Chair Martin Gary.

CALL TO ORDER

CHAIR MARTIN GARY: Good afternoon, everybody, and welcome to the Atlantic States Marine Fisheries Commission Atlantic Striped Bass Management Board meeting. My name is Marty Gary, I'm your Chair with the Potomac River Fisheries Commission. Our Vice-Chair for this Board is Megan Ware from the state of Maine, and I'm joined by staff members from ASMFC, Emilie Franke, seated to my right, and also our ASMFC Science Lead, Dr. Katie Drew.

Before we get started just a few announcements. I know the New Jersey DEP folks are going to get a lot of accolades over the next few days, but I'll start it, or maybe I'm second or third in line here. But I want to thank Joe Cimino, and all of his staff, Mike and Jeff and Heather and everybody for putting on a great show, and getting us settled here in Long Branch, New Jersey, a beautiful setting.

If any of you are lucky enough to see the sight this morning, it was pretty impressive to wake up to a textbook predator/prey relationship, huge amounts of menhaden along the beach, with stripers working on them, a humpback whale, and certainly a whole bunch of charter boat and fishing vessels.

The only thing I think that was missing, I was looking for Joe and a trident, as he summoned all of this to come together. Pretty impressive. Joe, thanks for all your hard work and all your staff for putting this together. We have a couple new Commissioners here, not new faces, but new in their seats. Doug Grout is here as a Governor's Appointee for New Hampshire, Doug, welcome back. You replace Ritchie White.

It's hard to believe we're not going to see Ritchie White around this table. But I will say, the granite state loses nothing in an intellectual and experiential

prowess, so we welcome you back to work with the Board here. Then also, welcome back to Adam Nowalsky, for New Jersey. Adam is going to be at the table as proxy for New Jersey's new Legislative Commissioner, Senator Vin Gopal.

I was going to say, Adam, I personally missed you not being here, to not miss the things that I miss. If everybody knows you, you don't miss anything. Thank you for all your hard work, and we welcome you back. Also, seated to my left is Sargent Jeff Mercer from Rhode Island, and he will be taking over at the Law Enforcement Committee for striped bass, so welcome, Jeff. He'll be replacing Kurt Blanchard, and Kurt, if you could raise your hand. Hopefully Kurt is still in the room, he's in the back. Kurt, thank you so much for all your help. (Applause)

Thank you, Kurt, for all your good work with this species over the years, much appreciated.

APPROVAL OF AGENDA

CHAIR GARY: All right, so we'll move on with our agenda, Number 2, Board consent. First order of business is the Approval of the Agenda. Are there any additions or modifications to the agenda? Joe Cimino.

MR. CIMINO: No, I just wanted to say thank you for that. I just would be remiss. We can't accept all those kudos, ASMFC staff has just done so much. The thanks really belong to Laura and the Lisa's and Tina. Thank you.

CHAIR GARY: Thank you, Joe, and absolutely right on the kudos to the ASMFC staff, so thanks to all of them. If there are no objections to the agenda as presented, we'll approve that by consent and go on to our next item, which is approval of the proceedings from August 2022.

APPROVAL OF PROCEEDINGS

CHAIR GARY: Are there any edits to those proceedings? Seeing none; we'll approve those proceedings by consent.

PUBLIC COMMENT

CHAIR GARY: Next up is Public Comment for items that are not on the agenda. We'll entertain comments for those items not on the agenda from those folks in the room, so we'll look for a show of hands, and also online, and I think, Katie, you have those if you see somebody, and Emilie. No hands online. Is there anybody that would like to make comments that is in attendance? There doesn't appear to be any, so we'll move on.

CONSIDERATION OF THE 2022 ATLANTIC STRIPED BASS STOCK ASSESSMENT UPDATE

CHAIR GARY: Item Number 4 on the agenda is Consideration of the 2022 Atlantic Striped Bass Stock Assessment Update. We'll have a presentation of the stock assessment report. Dr. Gary Nelson from Massachusetts Division of Marine Fisheries is lead analyst for the Striped Bass Stock Assessment. He is joining us virtually on the webinar, and will present the 2022 Stock Assessment Update. Is Gary prepared?

MS. EMILIE FRANKE: Yes, we are pulling his presentation up on the screen right now.

PRESENTATION OF THE STOCK ASSESSMENT REPORT

DR. GARY NELSON: Good afternoon, everyone. I will be presenting the results of the updated stock assessment, which we completed this past August, I believe. I will be going through each of the terms of reference that were assigned to us during the update. For the first Terms of Reference 1, we were required to update all the fisheries dependent data that were included in the last benchmark.

We did that by updating all of the commercial and recreational data for 2018 to 2021, these were included in the assessment. The recreational harvest and releases allowed us to calculate the dead releases, were obtained for each state via the MRIP website. The commercial harvest data were reported by the individual states, and as we did in the benchmark with the new improved method, we

estimated commercial discards using tag data and MRIP estimates.

Again, that method was approved at the benchmark. It's a kind of complicated method, so I won't get into it. Just as a reminder, there is actually some missing data sources which we have no information on. We have no harvest or release data from major rivers like the Hudson River, the Delaware River, and of course we really have no estimates of the amount of poaching that does take place. Those numbers are lacking from the assembly of the catch data. This slide just shows the total removals in millions of fish taken in Chesapeake Bay and the ocean region.

The ocean region includes all areas outside of Chesapeake Bay, and this is the time series since 1982. If you look at the vertical red dash line that indicates the separation between 2017 and 2018, and you can see that the landings after 2017 have been declining a bit. The total landings pretty much dropped and kind of leveled out in 2021.

The region with the highest removals is the ocean region, compared to Chesapeake Bay. This flag just shows the total removals by disposition category. Recreational harvest is here in pink. Recreational dead releases are in blue. Commercial harvest is in yellow, and the commercial dead discards are in black.

As you can see, recreational harvest and dead releases comprised most of the removals over the time series. In 2021, the recreational harvest and dead releases comprised about 86 percent of the total removals. This slide shows the age composition of the total removals from 2012 in the upper left-hand corner, to 2021 down at the lower right-hand corner.

Age is on the X axis here or the bottom axis. The strong year classes witnessed over time are represented as different colors. We have the 2011-year class here in yellow, and you can see starting in 2012, 2011-year class from Chesapeake Bay entered the fishery and progressed. You can see the landings progressing through time, they were strong age

components of the total removals during the time period.

Then since like 2019, 2020 the contribution of that large year class has waned over time. We also show here in blue the 2014-year class out of the Hudson, that's in blue. Then also the 2015-year class that entered the fishery in 2016. You can see that progressing through time, where currently it is one of the major contributors to the total removals.

We also have plotted the about average 2018-year class here in green. You can see that starting to come into the population too. This just shows you what ages comprised the total reports. We also were charged with updating all of the fisheries independent data that were used in the previous peer review benchmark stock assessment, so showing you that.

What we did was we updated all the young of the year indices, the age specific indices. We had surveys with complete age composition data, and all of the information here is used in the stock assessment to help tune the model, to determine fishing mortality and spawning stock biomass. This table just shows a pattern of how some of the surveys were impacted during COVID, and also for other reasons.

During the period 2018 to 2021, during COVID, during year 2020, New York's Age 1 Survey was delayed a bit in getting started. The New Jersey Young of the Year Index sampling did not occur during 2020. Getting to some of the age composition surveys down below, Connecticut Trawl Survey did not occur in 2020, neither did the New Jersey Trawl, but it also it wasn't conducted in 2019 and '21, I think due to boat issues or something like that. Then the Delaware Spawning Stock Electrofishing Survey did not occur in 2020. The Maryland Gillnet Spawning Stock Survey was interrupted, I think shortened in 2021 for reasons I don't remember, and the ChesMMAPI Index from the ChesMMAPI Survey was not provided, because they switched vessels and they are running calibration studies, so that the studies prior to the Index, prior to 2019 can be compared to what happened in the past.

Just to point out, these are young of the year indices, and just point out a few features. Shown in this slide are the young of the year at Age 1, survey indices from the Hudson River, Delaware Bay, and Chesapeake Bay, as well as the Maryland/Virginia Composite Index, which we use now as the primary Chesapeake Bay young of the year index in the assessment.

This is a modeling approach, where we combined the Maryland and the Virginia juvenile indices. The Young of the Year Index for New York showed a bit of a decline relative to 2008. The New Jersey, we've had a peak in 2020 and a drop in 2021, 2020 we still wonder whether this big peak here is either a strong year class coming out of the Hudson or it could have been due to the effect of that delay or later time period in which the survey was conducted.

The Virginia Index here shows a lack of strong year classes in the later time period in the lower one in 2021. The Maryland, in the lower left-hand corner, again we all know what's going on there. We have very low recruitment indicated by that index, and in New Jersey's Delaware Bay Index, they missed 2020, but the 2021 value has dropped to a fairly low value.

If we look at the composite up in the left-hand corner, this is the Maryland and Virginia Index, and we can see that the combined index is saying that recruitment has been declining since about 2017, '18, around there. These are for the Age 1 fishes, the Maryland Age 1 and the New York Age 1.

The Maryland as indicated here with the circles showing the strong 2015 and average 2018-year classes, and then New York Age 1, we can see that big 2014-year class indicated here. But in recent years it's getting lower. Recruitment appears to be lower. This map just shows the total index for the age surveys with complete age composition.

Again, ChesMMAPI only provided, I think one data point from 2018, because from 2019 on they switched vessels. We can't really say much about what's going on in the nearest years. Maryland Spawning Stock Gillnet Surveys have always been kind of flat and variable through time. The Delaware

30-foot trawl survey has been kind of flat since the mid-2000s.

Delaware Spawning Stock Electrofishing Survey showed their index as actually in the latter five or six years has been lower than in the former part of the time series. New Jersey trawls, we didn't have any information again for various reasons. The New York Ocean Haul Survey stopped in 2006, but we still use it in the assessment, and the index from the Connecticut Trawl Survey was missing 2020, but in 2021 value appears to be lower than previous years also.

Then the MRIP Catch Per Unit Effort Index that we developed has been declining a little bit in the last years. For TOR 3, we were assigned to tabulate a list of life history information used in the assessment in a model parameterization, and note any differences from the benchmark. Just to refresh your memory about the 2018 benchmark. We used a forward projecting statistical catch at age model, which estimates Age 1 abundance in each year. It estimates fully recruited F in each year. It estimates catch selectivity in four regulatory periods.

There is a catchability coefficient estimated for all indices. There is selectivity estimated for each of the age composition surveys, and the data are split into two fleets as mentioned before, the ocean and the Bay region, and this because we approved the selectivity fits and provides partial Fs for each of those regions.

We had used age-specific M's, which we had developed from various methods. To update, we used the same life history parameters, the natural mortality, maturity at age. We updated the weights at age for use in the spawning stock biomass calculation. We added a new selectivity block for 2020 and '21 because of all the regulatory changes that went into effect in 2020, where there were some major changes in size limits.

We thought it was best to start a new selectivity block. During the exploratory analyses, we tried to figure out what shape the new selectivity blocks, the selectivity kind of would be in these blocks. We

explored providing a four parameter double logistic equation that can produce both flat top and dome shaped selectivity, and the result was that the dome shaped was needed in Chesapeake Bay, but flat top was still evident for the ocean.

However, because of the size changes, the selectivity slid down to younger ages. As part of the update, we also adjust the CVs, you can see it is the statistical thing to do. We adjust the CVs for the surveys, and to get residual mean square area around 1.0, and then we also adjust the effective sample size of the survey age composition data using Francis's method.

TOR 4 was to update accepted model and estimate uncertainty, conduct retrospective analyses, include some sensitivity runs, and compare the benchmark assessments with the results from the current assessment. Our model, again we updated the model and we have a new selectivity period for both the Bay and ocean, and that was a model approved by the TC.

That is considered our base model. These are results from our base model. Shown here are the estimates of fully recruited fishing mortality for the Bay, which is in the lower gray line, and the ocean, which is the upper gray line. The total fishing mortality is in the red here. The highest fishing mortality generally occurred in the ocean region, and all of the regions showed a decline after 2017.

The fully recruited F in 2021 was 0.5 in the Bay, and 0.1 in the ocean. The total fishing mortality that we use in stock determination was estimated to be 0.136. If you look at the graph you can see that there has been a tremendous decline in fishing mortality since after 2017. The regulations have done its job.

Okay, this slide just shows the estimates of recruitment for the model. Remember, this is a combined stock model, so even though Chesapeake Bay catch influences a lot of the components in the estimates in the model, we also have Delaware, and also the Hudson River fish in here too. You can see, I just pointed out some of the past strong year classes, 2011, 2015 and that average year class 2018. In the last couple years, it's been estimated to be

lower. This slide just shows the estimates of abundance coming from the model. Age 1 plus abundance, which is Age 1 through 15, is shown here in the gray, and you can see that increased over time, but has declined after about 2003 or '04, and has kind of jumped around.

That's simply because recruitment overshadows most of the other ages. But if we break it down into just Age 8 plus fish, you can see again there was a big increase up to about 2003 or '04, some bouncing around then since about 2011, numbers of 8 plus fish have declined. These are the estimates of female spawning stock biomass in metric tons that comes from the model.

Kind of similar pattern to the numbers, we were peak in about 2003 or '04, some bouncing around and after about 2010 or '11, it has declined. The current model estimates suggest that it's actually been increasing over the last few years. That is probably due to the 2015-year class starting to move into the active part of the population.

We were asked to do retrospective analyses on a model, and what a retrospective analysis allows is it allows you to observe the impact of parameter estimation with the addition of another year's worth of data. The way it works is that a current model estimate is compared to the estimates that would occur when the current year's data are deleted.

We do this essentially seven times, so what you're seeing here on the left are the actual estimates from each model run in which the current year is deleted, so we start at 2021 and repeat each model by deleting the next year and the next year and next year. It gives you a sense of how stable the estimates are.

The top is using the fully recruited F, and the bottom is female spawning stock biomass. Not too bad, in terms of stability of the estimates for fishing mortality. If we look at female spawning stock biomass you get a more sense that we're slightly overestimating the female spawning stock biomass now, and on the right are actually the retrospective

plots, where you can see for most of the time series up top is fishing mortality.

We slightly overestimated fishing mortality, but in the more recent years we're underestimating slightly. Fishing mortality on average is about 10 percent or so. Below is the retrospective for seven peels for the female spawning stock biomass, and you can see here that we're actually slightly overestimating the female spawning biomass now.

In the past, the last benchmark assessment, it was kind of the other way. The spawning stock biomass actually was usually underestimated. But that underestimation was becoming less as we were approaching using the 2017 data. However, with the addition of the 2018 through '21, that pattern changed a bit with those data.

But it also changed because of a slight change in weightings that occurred this time around when we used the methods to reweight the data, the new data. It definitely has changed. That was an issue we all discussed during the TC and stock assessment. Since there is a slight systematic bias in the 2021 SSB and fishing mortality estimates, which we identified through the retrospective, we investigated whether our terminal estimates should be adjusted for that bias. What we did was use the National Marine Fisheries method of doing so, and in this method, what happens is that there is a statistic called the Mohn's Rho, which is calculated, essentially the average of the proportional differences between the retrospective peels, and we use seven peels.

Those values are then used to adjust the terminal F and the SSB values. In this graph here, the black value is a five-area plot of the fishing mortality on the left versus the female SSB in the black circle here is the 2021 values. We adjust the terminal F and SSB using the Mohn's Rho. This red value is what that adjustment would be.

If the adjusted values are outside the 90 percent five-area confidence interval here, which are these lines coming out from the original estimate. Then adjustment is desired. However, if the adjusted values are within the confidence intervals, then

correction isn't required. That's kind of a rule that the National Marine Fisheries Service developed.

I couldn't explain completely how they got there, but that has been a standard that has been adopted, so we adopted that here. Based on this comparison here, the resulting values did not have to be adjusted in any way, so we'll just use the values that were produced somewhere else. We did a number of sensitivity-runs.

We ran a sensitivity analysis to examine the potential impact of the delay in sampling that occurred for the New York Age 1 Index, in that the shortened season in the Maryland Spawning Stock Survey. We looked at the impact by essentially moving those points from the assessment model, and re-estimating everything, and then comparing the estimates from the model.

You can see here on the left are the estimates of fishing mortality for both models, which you can't see, because they lay right over each other. The top is fishing mortality, middle is female spawning stock biomass, and bottom is the Age 1 recruits. The only slight difference that occurred was in the 2019 value, and if you look over to the right, which just shows the percent differences in the estimates between the two models.

There was a slight change between the base and the model with the points deleted, and it was essentially the current model estimates the recruitment about 10 percent higher than the models without those data points. It really wasn't much impact at all, so we weren't worried about it. We also examined other configurations for the selectivity blocks in the 2020 and '21 period.

We ran two scenarios to explore resulting changes to our model. In the first scenario, a selectivity block was used only in the ocean region, and in these graphs the ocean only region will be in red here, with the triangle. In the second scenario, we just continued using the same selectivity blocks as we used in the benchmark, which essentially the last block went from 1996 up to 2017. That was one time block.

These graphs just compare the changes in the fishing mortality and SSB. The resulting fishing mortality in SSB for the ocean only stock actually ocean only selectivity block, came up almost about the same as our base model, which you can see here in the red the base model is in the black. That is fishing mortality. The estimates were just slightly lower. For SSBs they were just slightly lower than the base model. Assuming no changes in selectivity, the estimates were a lot higher in the orange here up above, then the current base model. The SSB actually declined a bit compared to the base model. This slide just shows a comparison of the fishing mortality and spawning stock biomass between the benchmark and the 2022 update. You can see up at the top this fishing mortality.

They pretty much agreed up until you got near the terminal years in the benchmark, but now the model is estimating a higher fishing mortality at particular years, so that it changes a little bit. At the bottom there is female SSB showing that during the early parts of the time series the new model is slightly underestimating SSB compared to the benchmark, pretty close during the middle, and now it is underestimating, I wouldn't say underestimating. It is lower than the benchmark produced in 2018. There are some changes.

Term of Reference 5 was to update the biological reference points of the stock and determine stock status. Because of that we're in the low recruitment period, all the reference points that I'll be showing were developed using the low recruitment regime, which are pretty much using the recruitment estimates from 2008 to 2021, which represents our low recruitment regime.

The female spawning stock biomass reference points are essentially determined from the estimates that come out of the stock assessment. The threshold is the 1995 spawning stock biomass value, and in the model, it was estimated to be 85,800 metric tons. Our SSB calculation is just taking 125 percent of the threshold, and that estimate is 106,800 metric tons.

The way we come up with the fishing mortality associated with those thresholds and targets, is we

use a stochastic projection model. This is parameterized with the estimates of abundance at age and associated errors from the model estimate ending in year 2021. We use an average selectivity after 2021 in the projection.

We project 100 years in the future and we do that 10,000 times, and during each time we're randomly drawing recruit Age 1 estimates from, again from the 2008 to 2021 low recruitment regime. Essentially in this model you adjust, we have an F that you adjust, and you adjust that until the median spawning stock biomass at the end of 100 years equals our SSB threshold and SSB target estimated from the stock assessment model.

The Fs associated with the threshold came out to be 0.20, and the F target was 0.17, which are pretty close to, if I remember correctly, pretty close to the F threshold and target that we had in the benchmark. If we overlay these values onto the female SSB and fishing mortality plots, on the left here the red solid line is the SSB threshold, and the upper dash line SSB target.

If you compare the estimates of female spawning stock biomass, they are all below those reference points, and so the stock is determined to be overfished. If we look at the fully recruited fishing mortality below however, current fishing mortality is estimated to be below both the F target and F threshold values, so we can conclude that overfishing is not occurring.

We were also asked to do short-term projections. This is TOR 6. What people were interested in is, determine the probability of reaching the target by 2029, under the low recruitment regime. We expect to project to the population using the same starting values that we did to determine the reference points, same values starting at 2021. We sampled from the low recruitment data, assuming that the current F remain constant over the time period. That would be in the upper graph here. The middle graph is assuming that we fished at the target after 2021.

Then at the bottom is fishing at the threshold after 2021. The red triangles here, the median of the

10,000 replicates, the projection, and then shown here in the dash the upper and lower 2.5 and 97.5 percent tiles. The target and threshold are the dash lines, the threshold values and the solid, what do they call that? That dashed line, it was the dotted line is the target.

Under the current, if we can maintain F at the current level, it's projected that the SSB would be reached by around 2025. By 2029 there is a 78.6 percent probability that SSB has exceeded the target value. By that time too, close to almost 100 percent of the SSB will be above the threshold.

As we increase the fishing mortality to the target at 0.1677, we do reach the target value by 2029, and the probability of being above the target is about 52 percent or so, about 82 percent being above the threshold. Then if we fish at the threshold value, the SSB increases a little bit, but then tapers and starts coming closer to the threshold.

By 2029 there is only a 30 percent chance it is above target, and 59 percent chance or so that it is above the threshold. In conclusion, the stock is overfished, but overfishing is not occurring. This is relative to the new low recruitment at reference points. There is a 78.6 percent chance the stock will be at or above the SSB target in 2029 under the current F. Based on these results, there seems to be no further reduction needed at the time.

Just to mention some sources of uncertainty, 2020 and '21 data are more uncertain because of COVID-19. The retrospective pattern has changed directions a bit, and we're now underestimating F and overestimating SSB. We only have two years of data for which to estimate the new selectivity block, so that could change a little bit, at least the patterns in selectivity or the shape, I should say, might change a little bit when more years of data are added. That's it for me.

CHAIR GARY: Thank you, Gary for your presentation. At this time, we'll take questions for Dr. Nelson, and just a reminder, we do have two Board members participating online, so Katie and Emilie will be taking a look to see if they raise their hands. Questions for

Dr. Nelson? Start with Jason, Mike Armstrong, and we'll go to John Clark.

DR. JASON McNAMEE: Thanks Gary for the kind of whirlwind tour of the assessment, appreciate it. The question I have, I want to hone in on that selectivity block that you noted. I had sort of made a note of that myself. What I was wondering, because that was an element of the assessment.

Everything was pretty stable for a lot of the different sensitivities that you guys tried. The one that has kind of an important impact, depending on the assumption that you make is that last selectivity block. You've only got two years in there, which you noted. What's your feeling of the ability of the model to kind of estimate parameters for the function of forms there? Did it seem like it could, were they stable? Was it coming up with the same kind of parameter estimates with the various runs, or did there seem like there was kind of a lack of stability there? I was wondering about how much faith we can kind of put in the model's ability to kind of figure out the shape of those selectivity's.

DR. NELSON: Well, I can tell you offhand that the selectivity parameters estimated have really tight CVs, you know less than 10 percent. There is information there. In terms of the potential shape, that may be an issue. It was my thinking that with the change in size regulations on the coast, you know going to a 35 maximum size limit, that the selectivity on the ocean, in my mind should have gone a little dome shaped.

The model still estimated its flat top, but the midpoint, if you will, the LD50, whatever you want to call it. Actually, those slid down so it's actually encompassing younger fish, which after talking about it for a long time in the group, we kind of considered that could make some sense. It may be different in another model, depending on how you're estimating things.

I think I did look at; I can't remember exactly. I think I did look at leaving out the 2021, and just running a 2020, and things came out fairly similar. But I'm more confident that the shape may not change that

much as we add data, but it may will, at least for the ocean. We might actually start seeing a dome shaped curve being developed as we add more data. I don't know if that answers your question, Jay.

DR. McNAMEE: Yes, absolutely did, thanks so much, Gary, appreciate it.

CHAIR GARY: Your next question is from Mike Armstrong.

DR. MIKE ARMSTRONG: Hey Gary, I think it's probably in the document. I couldn't find it. I'm curious, how much did the SSB reference points change with the low productivity at the end?

DR. NELSON: Yes, I would have to dig out the old assessment. I think it declined the SSB in the 1995 estimates went down. However, the F estimates associated with that level of SSB that we did through the projection, were kind of close to what we were using in the benchmark, if I remember correctly. I think the target was like 0.18, and I think the threshold might have been 0.22 or something. Katie, can you remember? You don't remember what that was?

DR. KATIE DREW: Yes, it seems a little bit more than you might think. The fishing mortality threshold previously was 0.24, and now it's 0.20 with the low recruitment assumption, so that's the threshold. Similarly, the target I think was 0.20 for the, sorry we don't have it, I think it was 0.20 for the old one and now it's more like 0.17.

I would say it was maybe like a 10 to 20 percent change on the F side of that. Then there was maybe a 10 percent change in the SSB threshold and target itself, but that was surely because of changes to what the model was estimating that 1995 SSB to be. I would say it was within sort of the confidence intervals of that last reference point.

DR. NELSON: I must have been thinking of 2017 stock assessment. Does that answer your question, Mike?

DR. ARMSTRONG: Yes, particularly the SSB. It didn't change radically, it's not like we have a whole new place to go to. It's almost the same. Looking at the retrospective, you decided based on Mohn's Rho that you didn't adjust it, but just verify this for me. I did a little back of the envelope calculation. Even if you adjusted it, it wouldn't have changed stock status, right? It looks like it might have changed it from 0.14 to 0.15. We would still be okay, is that correct?

DR. NELSON: Yes, that's correct.

DR. ARMSTRONG: This one may be more of a comment. There might be a question coming out of it. The projections seem really sensitive to F, which no brainer, but we're talking operating in the hundredths place, and a few points changed there really changes the course of how we recover. Would you agree with that, Gary?

DR. NELSON: Yes, going from 0.13 essentially to 0.2 for the threshold. You know that is considerable increase in catches going from the lower one up to the other, which is why the population levels off at a different F. Are you asking me whether that is realistic or not?

DR. ARMSTRONG: I conclude with, it's just this Board should be very cautious, because it doesn't take a lot to change the course of a recovery, relatively minor change in rise in F that will put us back in the recovery period. That was my point. But just I wasn't to emphasize we have to remain cautious as we move forward.

DR. NELSON: Yes, particularly since there is error in the F estimates and stuff like that.

DR. ARMSTRONG: Thanks, Gary, that's all I've got.

CHAIR GARY: We'll go to John Clark, Emerson Hasbrouck and Mike Luisi.

MR. JOHN CLARK: Thank you for the presentation, Gary. I wanted to follow up on SSB. I have a, I'm sure it's a simpler question. One thing I found confusing than Mike Armstrong had there, but the benchmark

assessment, the 2018 one had the SSB threshold at 202 million pounds, and now with this low recruitment it is down to 85 million, which is a much bigger. I thought you just said it was a 10 percent decrease. Am I missing something there?

DR. NELSON: Yes, the ones I'm stating are in metric tons. I don't know what it would be in millions of pounds.

MR. CLARK: Okay, I was looking at the wrong thing there. The other thing I just was curious about was that even though they had about the same pattern as the benchmark, that the years at the highest SSB were above the target in this latest assessment, where to the benchmark they never surpassed the target. Is that all just having to do with using the low recruitment assumption, or were there other factors at play there?

DR. NELSON: That's a good question. I don't know, I'll have to run the projections again with the old recruitment period. I don't know. Do you have any idea, Katie?

DR. DREW: The low recruitment assumption doesn't have anything to do with the actual SSB target and threshold, that comes purely out of the model, based on the data that we've seen. The low recruitment assumption then is what level of F do you need to get back to that historical level? What changed is we've added new years of data.

We adjusted sort of the structure of the model a little bit at the end, and that caused a change in some of the historical perception of the stock. Where that '95 value is now estimated to be lower than it was in the benchmark, that then rippled through to the SSB target. I would say that right now, historically it looks like we were above that target. But I would also say that during the benchmark, if you looked at the confidence intervals around the SSB, those confidence intervals did encompass the target.

Similarly, they also encompassed below the target in this run. It adjusted the point values. We were really close to the target, but not at it previously. Now we add a little bit more data, the model adjusts itself a

little bit, and now we're a little bit above it. But probably within the overall uncertainty of the benchmark and this one.

MR. CLARK: The changes you're saying, Katie that really, it's following pretty closely what you saw with the benchmark, even with the changes in the low recruitment, the different selectivity block, and all that. Everything is following pretty much what we saw with the 2018.

DR. DREW: Yes, it's a very small difference. It's just enough, to kind of like flip you over that threshold, as opposed to just being slightly under it now at that target.

MR. CLARK: Just curious about that, thanks.

CHAIR GARY: We'll go to Emerson Hasbrouck and then over to Mike Luisi.

MR. EMERSON C. HASBROUCK: Thank you, Gary, for your presentation. My question and concern are very similar to what Mike just expressed a couple of minutes ago. Can we put up that slide that had the graphic in the table of rebuilding? It was up there just a couple minutes ago, yes, that one.

If the retrospective pattern is telling us that we tend to overestimate SSB and underestimate F, we're getting close to being on the razor's edge here. As Mike said, you know a little bit of change in F can have a significant impact on our rebuilding for SSB to target. If F starts to approach the target, or even the threshold, it's going to have a significant impact here. Are we going to get another update next year, or do we have to wait two years?

DR. NELSON: I believe it's two years. But I hear what you're saying, no I understand what you're saying.

MR. HASBROUCK: Is there any way we can have like an interim update next year, to kind of see where we are with F? You know like I said, we're on the razor's edge here, and if we fall to the unfortunate side, we're going to be in worse shape two years from now.

DR. NELSON: I think that would be up to the Board and ASMFC whether they would want us to do another one. Doing an intermediate update would take just as much work to do it. We have to update all the data, same process we do two years from now.

CHAIR GARY: Emerson, Toni I think wants to comment.

MS TONI KERNS: That would be the prerogative of the Board to make a recommendation to the Policy Board, and then the Policy Board would have to take that into consideration. As you all know, we look at the stock assessment schedule every year, and we are almost at or maybe more than at capacity for our stock assessment team, as well as the stock assessment members of the states, and organizations that partner with us. If we add striped bass, we would likely need to take something else off the schedule, in order to make time for that. That would be a consideration that the Policy Board would need to take into account.

CHAIR GARY: Emerson, do you have a follow up to that?

MR. HASBROUCK: Well, yes, I understand that. I thought there might have been like a quick and easy way, just to update and see where we are with F. But from what Gary said, it doesn't seem like there is a short version here.

DR. DREW: I think what the TC would recommend that we do is, so as part of these projections that you do, what you get out is kind of under this F. What would be your expected level of catch next year and the year after with some confidence intervals. Instead of updating the full model, we could look at the projections and say, we would expect, if we are still fishing at our current F or an acceptable level of F.

What is the acceptable range of tests to get out of that and still be within your sort of predicted F rate? Then compare that to the removals that we saw in 2022. When we do the FMP review in 2023, and see are we maintaining current levels of removal that are

within our expected rebuilding trajectory. That would definitely be easier on the Technical Committee than doing a full assessment update, and then do the updates again in 2024, and have two more years of data to help anchor where we are.

MR. HASBROUCK: Yes, that sounds reasonable. If we get to a point, Mr. Chair, where you would like a motion to that effect, I would happy to do that.

CHAIR GARY: Thanks, Emerson, we're going to go to Mike Luisi, and I would like to go to Justin Davis, and then back to Mike Armstrong.

MR. MICHAEL LUISI: Gary, thank you for your presentation. You made a comment during your presentation, which was very well done, by the way. In speaking about spawning stock biomass that the regulations that we currently have in place are doing their job. I'm just interested in understanding maybe a little bit more about what the team that did the assessment discussed regarding maybe some of the social aspects. Based on your opinion, and the work that you've done over the years with striped bass, is it the regulations that are working or do we just have less effort and less availability? I'm just asking for your opinion. I think that is important to put on the record, based on the comment you made.

DR. NELSON: Yes, I'm not sure about effort. I haven't looked at the effort estimates from MRIP to see if they've gone up or down. Potentially we can do that and send it with a memo or something. I think actually in my opinion up here anyway, in Massachusetts I did think that the maximum size limit provided is really working.

There are lot of people releasing those big fish now, and I just think it is all part for allowing those older, mature fish to survive. We're getting this uptick in SSB as the 2015 in our year class is starting to go through. I think that year class has got to hold us out for a while as the 2000 (faded) progresses after that. I don't know if that answered your question.

MR. LUISI: Yes, that helps. It definitely helps, and I think it's a good thing for the public to understand that the actions that we've taken over the years are

starting to show signs of progression towards our ultimate goal. I wanted to get your professional opinion, so thank you.

CHAIR GARY: Over to Justin Davis.

DR. JUSTIN DAVIS: Thanks, Gary, for the presentation. I've got a two-parter here if you'll indulge me, Mr. Chair. The first question had to do with a low recruitment assumption. Based on the presentation we just saw, because you selected the low recruitment assumption in the rebuilding plan in Amendment 7.

The projections that were used to develop the reference points, the fishing mortality reference points and the short-term projections to see where we would end up by 2029 both use that low recruitment assumption, which is pulling from recruitment from 2008 to 2021. My question is, for the recruitment that we've seen in the last three years, which has been below average and kind of concerning.

I'm wondering, Gary, can you comment on whether the recruitment we've seen in the last three years is within that range from 2008 to 2021, the sort of low recruitment dataset we're using? If it's within that range, sort of where does it fall out? Is it 25th percentile, you know below the median, above the median?

DR. NELSON: You mean the what the index out of Maryland is showing, those last since 2018, the very low recruitment, how that compares?

DR. DAVIS: Yes, correct. I'm just trying to get a sense with the recruitment we've seen in the last couple years that's been low, how that compares to that range of years used for the low recruit assumption.

DR. NELSON: It includes up to 2021, so I have looked at the recent values, just for edification, using a model to estimate what the Age 1 recruitment might be out of the model, given the Chesapeake Bay Index. It's pretty much within the same range that we have in there for the last few years, the 2018 or '19 to 2021. The range is in there.

What we don't model in the projections is whether there is a serial correlation between one year to the next, which less values the last four years or so with the Chesapeake Bay, it seems to be, it was a correlation with not much happening there, all kind of the same level. Does that answer your question?

DR. DAVIS: It does, thanks, Gary. The second question I had is probably simpler. If you had made the bias correction to F, based on the slide we're looking at right now. I'm just wondering if F current was biased corrected. Where would we kind of fall out relative to the three scenarios here? Essentially, what would be our probability of being at an SSB target by 2029 under that F, if it was bias corrected?

DR. NELSON: It's about, I'd say about 10 percent. Let me just pull out my calculator here. Current F would probably go up to 0.145/6 around there. If we look at the values on the slide here, current F of 0.36 and targeted point 0.67. We could adjust the SSB projections a little bit downwards, and I would think that we would still be reaching the target by 2029, based on what I see on the graph.

CHAIR GARY: Thanks, Gary, thanks, Justin. Over to Mike Armstrong.

DR. ARMSTRONG: Thank you for another bite. This is more of a comment, but I think it's the right time to bring it up. It's following what Emerson said, and I'm extremely sensitive to the workload. But again, this is a multibillion-dollar fishery, and perhaps, you know rather than doing a spot assessment, maybe striped bass is the one we should do, just my opinion.

I looked at the MRIP landings, and they are up considerably this year. There is only one way we can react as a Board to low recruitment, and that's maintaining an increasing SSB. If in fact the retrospective is right and we're a little bit higher, and some of the other uncertainty and landings are up. We may in fact be at the threshold already, after this year.

It would be good to know that. Alternatively, Katie brought up a method, maybe you can project landings and compared to what we actually did, and

maybe we can say, you know we're okay, or conversely say no, we went up a lot. That is the problem. We don't have an output control for a direct fishery, so there is stuff that happens again and again.

But the main reason we are in this situation is we have never hit our target F, at least for a prolonged period of time. To prevent that we need to know what F is. I would advocate for something, either an update, or what Katie was talking about, to kind of give us an idea within one year of where we're at. That's because mostly of the recruitment. We need to get SSB up, which may not work, but that's all we can do. I'll leave it at that.

CHAIR GARY: Thanks, Mike, Emilie is going to respond for the staff.

MS. FRANKE: Thanks, Mike. The method that Katie outlined were from these projections. We have the projected catch that would keep us at this current F, and we could compare the realized removals next year, once we have all the 2022 data to that projected catch.

I think that's something we could add to the FMP review process without any sort of motion, we could just do that. If the Board did want to see a more full assessment update that would require a motion for next year. But otherwise, the next update will be in 2024. But we can plan to do that comparison of realized removals versus projected catch next year.

DR. ARMSTRONG: If we did that, would we have time to get the assessment together, or would we wind up in a two-year period anyway?

MS. FRANKE: Right, so if we did that comparison that would be in August. We wouldn't have time then to do a 2023 assessment, we would still be waiting for 2024. It wouldn't be sort of a wait and see if we want to do a 2023, we would have to decide pretty soon if we were going to just do the projection comparison or go the full assessment update route next year.

DR. ARMSTRONG: I don't know quite how to react to that, other than you know we're not locked in.

This is kind of crazy speak, but if we find that landings are high, and projected to go above F, we could always cut harvest without a quantitative assessment. I could sit here and make a motion and say, let's cut harvest by 10 percent.

I don't know what it will do. It may cause people to go crazy. But I just think we're in a spot that we need to react. That being said, stocks don't collapse overnight. But with 4 years of poor recruitment, we're approaching that point, in my mind. Anyway, something to think about for this Board.

CHAIR GARY: We're still on questions. We have a couple in the queue, we have Steve Train and then we'll go to Mike Luisi. Is there anybody else who wanted to ask a question who hasn't asked one yet? Okay that's our queue, and then we're going to pivot to staff for some additional information they are going to provide, before we open this up to comments and potential reaction to this. Go ahead, Steve.

MR. STEPHEN TRAIN: Thank you, Dr. Nelson. I'm, I won't say confused, but I guess I'm uncertain. One of the people at this table I would ask for advice from trying to decide on a species and what I'm going to vote for, what I think needs to be done is Mike, and I'm not sure I agree with what he's been asking.

I mean, for years we've told people when we're managing a fishery to trust the science. We've got some great graphs here of what the science tells us will happen if we maintain the course, and everyone seems worried that it's not enough, not everyone, but a lot. The stock is overfished, but overfishing is not occurring. Correct me if I say anything wrong, Dr. Nelson.

We are now returning trophies, which we didn't for a long time. That is a healthier egg, a better likelihood of spawn ability, and it seems to me like it's the best thing we've done for the brood stock since I've been on this Board. The retrospective analysis appears that this is a good model, although it did show us there was a little bit of trouble with the brood stock. But this is the new regime we're in with the management of returning the trophies. The

stock will be growing, and if we do nothing, it should recover. If we stay the course this should recover. That is if we trust the science. The only thing we don't know, I feel like I'm a politician, we don't know the unknown. We don't know how much effort that we haven't accounted for.

I guess with everything I've heard here, I'm wondering why we're questioning the science so much. If it's possible that it could be weak, that this is inaccurate because we have an unknown. How much damage can we do if we allow this to go under this for another year or two before we correct it? We're not going to wipe out this fishery, am I wrong?

DR. NELSON: I'm just thinking of those fronts. There is error in everything that we're showing here, so things may be a little higher, they may be a little lower. The big issue I think in my mind is we basically have no control on what the recreational fishermen do. You know it's unlimited access.

If all of a sudden like Mike said, there could be a huge increase in landings one year. If that forces the F to go above what we're showing here in the projections at F current, then yes it can be a definite impact on the rate of recovery of the spawning stock biomass. Yes, that's just what comes to mind. I don't know if that answers your question. I don't know if you were talking to me directly, or it sound like you were talking to a lot of people on the Board too.

MR. TRAIN: Yes, maybe a little of both, but I guess the question came down to, is it the unknowns that could really mess this up, and could it really cause a lot of problems in one or two years? I don't even think that would be big enough to throw us way off course.

DR. NELSON: Gee, that's hard to say, it depends on what the endpoints are. But I wouldn't see F increasing astronomically. It might be within a range that we're showing here. I don't see any of the selectivity patterns changing majorly with an addition of another year. That is a good question, but I really don't have a good feeling about the answer.

CHAIR GARY: All right, thanks, Steve, are you good, Mike?

MR. LUISI: Yes, I'll hold my comment to the point where if somebody does make a motion on action, I'll save it for that.

CHAIR GARY: I would like to go ahead and turn to staff. Now there are a couple of additional points related to the assessment that they'll provide, so I'll go to Emilie.

MS. FRANKE: We're just taking back the screen here. Real quick thanks again, Gary, for the presentation. While we're getting the screen pulled up here, I was just going to quickly go over two points related to the stock assessment. The first is, the provision in Amendment 7 that specified the possibility of the Board taking quick action in response to this assessment, and noting that that does not come into effect, and I will go over that in a minute. I'm also going to just briefly go over some questions that we've gotten about the juvenile abundance indices, related to rebuilding. Again, there have been some questions following the recent release of the JAIs in the Chesapeake Bay. I'll just briefly go over those two topics in just a moment. Perfect. The first point is the fast-track response. In Amendment 7 we have this provision that if the 2022 assessment indicated that there is less than a 50 percent chance of rebuilding, and at least a 5 percent reduction is needed, then the Board could adjust measures via Board action. By taking action at a Board meeting without going through the Addendum process.

As we heard in the presentation, the assessment indicates there is a greater than 50 percent probability of rebuilding, and that no reduction is needed. Neither of these criteria are met, so therefore this fast-track response does not come into effect. That means that any action the Board wanted to take would go through the normal addendum process. Then just a couple points on the JAIs, again we've gotten some questions with the recent news from the Chesapeake Bay JAIs.

Again, as Gary mentioned, there is the four JAIs and the two Age 1 indices that all go into the stock

assessment model to estimate Age 1 recruitment. Those indices are all weighted by the model, and overall, the Maryland JAI is closely correlated to that model estimate of Age 1 recruitment. That indicates that the Maryland JAI is a good predictor of coastwise Age 1 recruits. For this year's stock assessment, the terminal year was 2021.

We have those Age 1 estimates of recruitment through 2021. That incorporated all those Age 0 JAIs through 2020. Those low JAIs from 2019 and 2020 translated into those below average recruits that we saw in the final two years of the assessment. Then the most recent JAIs in 2021 and 2022, those will inform Age 1 recruitment estimates in the next assessment, when we're looking at Age 1 recruitment in 2022 and 2023, and so on.

Finally, this assessment used that low recruitment assumption that Gary reviewed. Just a note that these recent below average year classes, these recent JAIs we've seen, those fish aren't going to reach maturity until 2027 and after that. These recent low year classes may not impact spawning stock biomass until after that 2029 rebuilding deadline. Future stock assessments are going to be really important to provide those updated projections, as we start to see those below average year classes enter the fishery.

CHAIR GARY: Could you remind the Board what action is required today as a result of this update.

MS. FRANKE: Sure, for stock assessment updates no Board motion is required. As I mentioned, if the Board did take any action, that would go through the typical Addendum process. If the Board didn't take any action, then things would remain as they are, status quo.

CHAIR GARY: What I would like to do now, before we embark on any additional Board discussion is, I know myself and several other Board members received a flurry of comments from the public in advance of this meeting. I would like to carve out five minutes and ask if we could put the timer up, and initiate it upon the first public comment. Carve out five minutes for public comment, and Emily, if you

could help me out with that to see if there is anybody that would like to offer comment.

MS. FRANKE: I see one hand on the webinar.

CHAIR GARY: All right, Ross Squire, would you like to comment?

MR. ROSS SQUIRE: Okay great, I actually had two questions. Can you explain, when you have the amount of data that is missing, in terms of the catch data from a number of rivers, and index data that is missing. What accommodation does the Technical Committee make in terms of estimating the impact of harvest in those areas?

Then the second question that I had is, you know we have a very large year class. The 2015-year class was a 24.2 young of year index versus the last four years coming in at about a 3.2. You have all of these large numbers of fish now exploitable within the slot. Can you tell me what, if any, impact that has in terms of how F is calculated going forward?

DR. DREW: This is Katie, I'll jump in, and then if Gary wants to add anything he can. I will say, so Number 1, I think your first question about missing catch. Catch that we're missing is catch that happens above the tidal limits of MRIP. You know catch in the rivers, essentially the Hudson River, the Delaware River et cetera.

We've looked at creel surveys that occurred on those rivers in the past, and compared them to MRIP estimates for those years. Overall, we've found that those estimates of harvest are very tiny, negligible compared to the rest of the coast. We know it's there; we know we're probably underestimating catch somewhat, but we don't believe it has a significant impact on the stock assessment.

In terms of years that we missed sampling, because of COVID or because of other issues. Basically, we just leave those estimates out of the model, and the model can smooth over them. It essentially just increases some of the uncertainty in the final results that are carried through into the projections, to try

to figure out how much uncertainty there is around those percentages.

We know that it does increase the uncertainty, and that is sort of feeding into the projections. It's basically we can't correct for it or accommodate those missing surveys, because we don't know what happened. But we do have data from, it's not a complete lack of data. We do have data from other surveys that happened, it's just less information for the model to use.

Again, that uncertainty gets propagated through the projections, so when we were talking about that probability of rebuilding, some of that uncertainty about what happened in 2020 is included in those projections. Then the second question about, you know those fish entering the new slot, and that is taken into account when we do these projections, so that we start with that population.

You know you can see the 2015 and the 2018-year classes where they are now just starting to enter those fisheries. As we project them forward, we move them so the model will see how vulnerable they are to the fishery as it stands now. They will also see the amount of removals that we're expecting. As these strong year classes enter the fishery, it is expected that catch will go up somewhat, because there are just more fish out there, and that won't necessarily make F go up. However, there is a limit to as catch increases it will start to drive fishing mortality up, even as strong year classes come in to help support that catch. The model is aware of those year classes and how the fishery is impacting them, and it moves them forward to try to figure out how all of those things interact when we are finalizing our probabilities of rebuilding after that timeline.

MR. SQUIRE: Entering the slot will adjust F , or will it not? Is it just a datapoint that you're aware of, or is there some accommodation made for a significantly large year class entering the slot?

DR. DREW: The model knows that they're entering, and then it will expect that your catch will go up if you keep effort constant. I think what the model will not know is whether those increasingly available fish

will cause effort to increase, which will drive your fishing mortality up more than we would expect.

That I think is harder to keep an eye on, but that's again why we would want to go back and check kind of how does the catch that we're seeing in 2022 compare to how much catch we would expect, given that these strong year classes are now more available to the fishery, and whether or not that catch indicates that effort is going up as well as the catch.

MR. SQUIRE: Thank you, Katie, thank you, Mr. Chair.

CHAIR GARY: Thank you, Ross, good questions. We're going to take one more comment, and that's from Tony Friedrich.

MR. TONY FRIEDRICH: Thank you so much for the time, I sincerely appreciate this. I'm looking at fish inclusion slide, and it says there are sources of uncertainty because the 2020 and 2021 data are uncertain because of COVID-19, underestimates F and we only have two years of data with the new selectivity blocks.

We're betting the house, because we have three good year classes left and that's the 15th, 17th and 18th, and there are no regulation changes. We know that Maryland and New Jersey can keep their season plans, and that is not what the public wanted through the Amendment 7 process. You had over 6,000 comments with 98 percent saying to put guardrails on CE.

You know I don't know how long people can remember back, but we bet the house on the 2011-year class, and that did not work out very well. We should have taken more reductions. We took less reductions than we should have. The 2011-year class never came through, and are we betting the house that this selectivity block is going to work out as we think it's going to.

With squishy data on 2020 and 2021, and a retrospective pattern that underestimates F, with the 2015s have just entered the slot. The 2017s are coming up, 2018s will be right behind them, and we

know, based on history that if there is more fish out there, effort will increase exponentially. It's so fractional that we have to maintain this F in order to meet our conservation goal for 2029.

I feel like this is a little Lucy goosey, and there is one other thing that I would just kind of like to point out. You know not only is this not in the spirit of Amendment 7. I'm not trying to be too abrasive when I say this, but effort is down, because the fishing hasn't been as good. You can't say these regulations are the thing that's making the difference, because there are other forces at work. You have 2021 and 2020 data that is uncertain at best because of COVID, and we know that some areas are doing really well, and some areas it's like the dead sea. I wouldn't hang your hat necessarily on these regulations, because you're going to have all three of those year classes in the slot and F is going to go up.

Then when we come back to the table in a couple of years, we're not going to have anything to work with, because there are no year classes really between 2019 and 2022. Again, I'll just put an exclamation point on it. The point is pretty loud and clear and they certainly did not want to see CE without guardrails. Thank you so much for the time, Marty. I appreciate it so much and thank everyone else as well.

CHAIR GARY: All right, thank you, Tony, I appreciate that. We're going to return the discussion to the Board for any potential action. I'll open it up for discussion. Tom Fote.

MR. THOMAS P. FOTE: I've been sitting around this table for a long time, and basically, we basically try to do what is right. We trust the science, we work on the science, whether it's horseshoe crabs or whatever. The science isn't perfect, we all know that. Also, every time we tweak one thing it winds up doing something else.

I remember back when we changed size limits on striped bass three years in a row, because it showed different things if somebody tweaked it this way or that way. Then we basically counted these surf

fishermen in a bigger range than they've ever been, and that's why we were overfished and overfishing when we put this Amendment through.

Now, we're saying it will help the spawning stock biomass because we'll have larger spawning stock biomass and make heavier recruitment. Well, we did that. We said the same thing on weakfish, winter flounder and bluefish. I mean bluefish was doing great and we put a 10-fish bag limit then it went down the tank.

It had nothing to do with the bag limit or the commercial fishery, it had to do with the environmental conditions. We can't control the environment. We put a lot of restrictions in place, some of us didn't agree with the size limit slot that you picked, because it basically targeted what we thought would be the year classes coming along.

But everybody didn't want to go to a bigger fish or a smaller fish, they just wanted to move it along. I'm satisfied, and I got involved in this whole process in '86 because of striped bass, and I wouldn't do anything that would imperil the stocks. Yes, science is going to say we can do it. It might work out, and if we make a mistake, we'll fix it and correct it.

But if we start jerking around every year saying, also I didn't hear one of those persons say, suppose we've got a big young of the year next year and we show the numbers go up. Do we want to increase the stock? Do we want to increase the catch? I'm satisfied where we are. We don't have to make a motion to approve the stock assessment is what we were told. I agree with the stock assessment.

CHAIR GARY: Any other comment from the Board? Loren.

MR. LOREN LUSTIG: My question is for Emilie, and thank you for that excellent report to us. Early on in your slide presentation I was very impressed by the phrase, I think that was used either by you vocally or on the slide itself. If there was a greater than 50 percent probability of recovery, can you be more definitive than that? For example, if it's 51 percent probability of recovery, that means there is a 49 percent probability of failure. It would be helpful for

me to know what that number might be in your estimation.

MS. FRANKE: In Amendment 7 that provision specified that 50 percent cut off as the metric for sort of success of whether if the measures have a certain probability of rebuilding. The Board agreed that if there was a greater than 50 percent chance then the Board potentially wouldn't have to take action.

If there was a less than 50 percent chance the Board could act quickly to take action. From the assessment there is under the current fishing mortality rate, there is a 78 percent chance that the stock will rebuild by 2029. That is where we're at. I'm not sure if that fully answered your question.

CHAIR GARY: Any other comments? I'll ask the question of the Board. We can accept this as is, unless somebody has a motion they would like to advance forward, and it's alternative to accepting this. Are there any such motions? Mike.

DR. ARMSTRONG: It's a comment, maybe leading to a motion. I've heard a few comments. I just want to talk to them. To Steve Train, I don't criticize science, but we have empirical data. I'm looking at the MRIP estimates for this year. Through the first four waves we're up between 17 percent or 1000 percent, pick your state.

We're up, F is up. It has to be up. To Tom Fote's point. We've failed time and time again because we did not hit the target F, and that is my concern, and why I think we need to track it better at this point in time. The only way we can do that is with an assessment or projection, anything would be helpful. That being said, I will make a motion to accept the stock assessment as presented today.

MS. FRANKE: Thanks, Mike, we don't actually need a motion to accept the assessment, but thank you.

DR. ARMSTRONG: Yes, but I wanted to do that.

CHAIR GARY: All right, before we move on. Emerson, go ahead.

MR. HASBROUCK: Earlier I believe Emilie said that we do not need a motion to take a look at that projected catch and actual catch. Are we to assume then that the TC will be able to do that for us next year?

MS. FRANKE: Yes, as part of the FMP Review Process, which is typically in August of next year, once we have all the 2022 landings, we can include that in an FMP review, that comparison of what the catch was in 2022 versus what the assessment projected catch would be to maintain that F, so yes, we will include that next year.

CHAIR GARY: Got a couple of hands that popped up. I'm going to go to Chris Batsavage and then Mike, and then we're going to finish there.

MR. CHRIS BATSAVAGE: Yes, sorry for the last-minute question. Emilie, just to understand when we look at catch from the FMP review next year, and we see that it's quite a bit higher than what we projected. Would that be an opportunity for the Board to initiate an action to reduce catch? If so, would that possibly be in place by the 2024 fishing year, if the Board decided to go that route?

MS. FRANKE: I'll go to Toni first.

MS. KERNS: Chris, you could initiate an action through an addendum or an amendment at any time the Board desires. If we initiated action in August, I think it would be pretty difficult to get it in time for the 2024 fishery.

MS. FRANE: Yes, I think it would be difficult to get anything in place by 2024. One other potential direction is maybe we could have an earlier meeting with the TC, earlier in the spring once MRIP estimates are finalized, and maybe bring it to the May meeting. We won't probably have final commercial landings by that point. I'm not promising that's going to happen by May, but we could maybe talk to the TC and the Plan Review Team about taking an earlier look at the MRIP estimates, and just having a discussion of where we are at that point.

CHAIR GARY: Does that answer your inquiry, Chris?

Okay. Mike, you have the last word.

MR. LUISI: Chris asked my first question. I did have a question, if I could ask it through you to staff. What is being planned, as far as the comments that were made about a follow up? Is that going to be ASMFC only work, or is it going to require the Science Center as part of that as well?

Because the interaction that I have as the Chairman of the Mid-Atlantic Council, with our Northeast Regional Coordinating Committee, which includes Bob and Toni and Chairman Reid and others. I just wonder how that would all fit in. But if it's an ASMFC only thing, then I feel like I can fully support that.

MS. FRANKE: Yes, it would be an ASMFC only thing, with an in-house Plan Review Team and Technical Committee, and maybe the Stock Assessment Committee if needed.

CHAIR GARY: Are you good, Mike?

MR. LUISI: Yes, perfect, thanks, Marty.

CHAIR GARY: All right, thanks, everybody, for that discussion. Gary, before we move on, I want to just thank you on behalf of the Board for all of your hard work, the hard work of the Technical Committee and the Stock Assessment Subcommittee. Dr. Nelson, thank you so much for all that good work.

CONSIDER DRAFT ADDENDUM I ON QUOTA TRANSFERS FOR PUBLIC COMMENT

CHAIR GARY: We're going to move on to Item Number 5, Consider Draft Addendum I on Quota Transfers for Public Comment. I'll turn to Emilie.

MS. FRANKE: I feel those things to Gary as well. Today I'll provide an overview of Draft Addendum I to Amendment 7 for Board review today. I'll start with the statement of the problem here for this Draft Addendum. There were questions and concerns that have been raised about the striped bass commercial quota system, with some particular concern about the current use of the 1970s reference period as the basis for state commercial quotas.

Also, other issues and questions about how the quota system could be set up. All these concerns were included in the scoping document for Draft Amendment 7 last year in 2021, but ultimately this issue of addressing commercial quotas was not selected for further development in Draft Amendment 7.

Some Board members expressed support for addressing the commercial quota issue separately from Amendment 7, with the intent of not slowing down the progress on Amendment 7. In August, 2021, the Board did initiate this draft addendum to consider allowing for the voluntary transfer of striped bass commercial quota in the ocean region.

That was in order to consider a management option that could provide some more immediate relief to states that were seeking a change to their commercial quota. Again, this would be separate from addressing those other concerns raised about the quota system. As we all know, other Commission managed species do allow for the voluntary transfer of commercial quota, and quota transfers can address issues like shifting stocks and quota overages, et cetera.

Here is the current timeline on the next slide for the draft addendum. After the Board initiated the Addendum in August of last year, the PDT developed the first draft of that draft addendum. In October of last year, the Board deferred consideration and later postponed until August of this year. Just a couple months ago in August, the Board provided additional guidance to the PDT for further development.

The PDT revised the draft addendum for the Board's review today, and the Board is considering approving the draft addendum for public comment. If approved, public comment could potentially occur from November through January, although I will note it might be a little bit tough to schedule hearings, depending on how many there are with the holidays. But you could probably make it work.

Then if that happened, the Board could consider final action in February, 2023. The initial development of the draft addendum last year was constrained due to

the focus of the Board and the PDT on Amendment 7. The Board provided additional guidance a couple months ago, and the PDT met a couple times over the past few months to revise the draft addendum for Board review. Today I'll review the PDT revisions. I'll outline a question the PDT has for the Board, and go over the range of options that are in the draft addendum.

This was all in a PDT memo that was in supplemental materials. For the introductory portion of the draft addendum, the PDT did some significant revisions to the background section, to focus more narrowly on the commercial quota system itself and the ocean fishery, since that is the focus of this Addendum.

It includes a more detailed history of quota changes in the FMP, both pre and post Amendment 6, and also includes some pertinent information on ocean quota utilization. Here is an example of one of the new figures, showing the ocean commercial landings in the blue bars underneath the total ocean quota, that red line.

It lists the percent quota utilization each year. Again, this was information the PDT thought was relevant to the discussion. The quota utilization section in the draft addendum also includes the PDT's concern that we had originally discussed last year, which is that quota transfers could potentially increase the utilization of the total ocean quota, and this could potentially undermine the goals of the reductions taken under Addendum VI.

The commercial fishery has consistently underutilized its quota due to fish availability, and also some states prohibiting commercial fishing. The Addendum VI calculations assumed that the commercial fishery would continue to underutilize its quota, as it has in the past. This assumption might be violated if quota transfers do occur.

Moving into the proposed options. The options consider allowing for the voluntary transfer of commercial quota in the ocean region, between states that have ocean quota. If transfers are permitted, the draft addendum states that quota would be transferred pound for pound. I'll come

back to that at the end to go over the PDTs discussion on that point.

The Draft Addendum options do not address Chesapeake Bay quota, Chesapeake Ocean quota, and the options also do not consider transfers between the ocean and the Chesapeake Bay. Then the PDT had a discussion about commercial quota that through CE is reallocated to the recreational sector.

The PDT determined that commercial quota that has been reallocated to a state's recreational fishery, so to a bonus program, is not eligible to be used for quota transfers. This is due to the complexity of accounting for moving quota back and forth between sectors during the year. You know when states are developing their CE proposals in the first place, you know they could specify that they want to reallocate part or all of their quota to the recreational sector.

If they choose to leave some of that quota in its original commercial quota form that would be eligible for transfer. But anything that is reallocated to the recreational fishery would not be eligible to be transferred. Getting into the options themselves. The revised draft for review today now includes some additional options.

There is sort of a range of options considering allowing voluntary transfers of ocean quota. Status quo is Option A, in which transfers are not permitted. That's the current status quo. Then the alternatives range from Option B, which would be a general transfer provision similar to other ASMFC species. Option C would limit transfers based on stock status. Option D would give the Board discretion to decide on whether to permit transfers each year, and potentially establish some criteria around that. Then Option E combines the stock status limitations and the Board discretion into one option. For the alternatives you're sort of starting with Option B, which is sort of the least restrictive. If you're going to allow transfers, and you kind of move down to Option E, which would be the most restrictive for allowing transfers.

Getting into the details, Option B would be that general transfer provision for voluntary transfers of ocean quota. Again, similar to the transfer process in place for several other ASMFC species. The transfers may occur any time during the year, and up to 45 days after the last day of the calendar year.

All transfers require a donor and receiving state, and the Administrative Commissioners must submit a signed letter, and there is no limit on the amount of quota that can be transferred. Transfers do not require approval by the Board. These transfers don't permanently affect the state specific quota shares. The state receiving the quota is responsible for any overages.

The PDT did have a question for the Board regarding the 45-day window provision. In addition to voluntary quota transfers providing in-season relief for states, is it also the Board's intent for quota transfers to address overages after the season ends? If not, the Board could remove this 45-day provision from the Draft Addendum. That is a question for discussion at the end of the presentation.

Moving on to Option C. Option C would limit transfers based on stock status. Voluntary transfers would not be permitted if the stock is overfished. Again, it would be the same general transfer process, but with that built in stock status limitation. This type of option has been raised during Board and PDT discussions, and also in public comments. This type of option would address concerns about allowing quota transfers during stock rebuilding.

However, the PDT noted that given the current overfished status of the stock, this option would not provide that near-term relief for states that receive some additional quota, which was part of the basis for this Addendum. Moving in to Option D, this is the Board discretion option. The Board would decide whether voluntary transfers are permitted in the next one or two years. This option was added at the last Board meeting in August.

The process would be that the Board would decide by their final meeting of the year, whether to allow transfers in the next one or two years, based on

information on the status of the stock, and also performance of the fisheries. The PDT did add here some flexibility for the Board to decide every one, or two years.

The two years is on track with when stock assessments would occur, so that might be some good flexibility. Then the PDT also added a note that transfers are not permitted unless the Board decides to allow them. If the Board for some reason doesn't make a decision for a particular year, then transfers would not be permitted until the Board decides to allow them.

If the Board did with this Board discretion, decide to allow transfers, the Board could specify some criteria. The Board could set a limit on how much quota could be transferred in a year. For example, only X number of pounds could be transferred in year 2024, and further the Board could set a seasonal limitation on when quota could be transferred. For example, the Board could say, you know no more than 50 percent of that quota amount could be transferred before July, with the intent there of saving quota throughout the year if states with different seasons might decide they want a quota transfer at different times.

The Board could also determine the eligibility of a state to receive a transfer, based on the percentage of that state's quota landed. For example, state's may not request a quota transfer until it has landed X percent of their quota. The PDT noted that if any of these criteria are implemented, the Board should be as specific as possible with these criteria.

Finally, for this option on Board discretion on the timeline. You know if the Board selects this option and the Addendum is approved in the middle of next year, 2023, the Board could decide at the time the Addendum is approved, whether or not to allow transfers for the rest of that year, and then the Board would start their regular process of deciding on transfers, you know at the end of the year before the next.

Finally, our last option here is Option E, and that combines both that stock status option and the

Board discretion into one option. The Board would still decide whether voluntary transfers are permitted, except you have this built-in provision that transfers are not permitted when the stock is overfished.

Again, the PDT notes here that given the current overfished status of the stock, this type of option would not provide near-term relief to states seeking quota at this time. The final section of the document is the compliance section on the next slide. Basically, any measures approved by the Board would be effective immediately.

Just a note here that if quota transfers are committed, states would need to account for any transfers and potentially order some extra commercial tags to account for additional quota that they might receive. Then I'll just wrap up with a couple slides on the PDT's discussion about transfers between states with different size limits.

One of the PDT's concerns about quota transfers is that a pound of stripe bass quota is not equal across states. This concern was also previously noted by the Technical Committee during discussion of Addendum IV in 2014. We know that state commercial fisheries catch different size of striped bass, due to multiple factors.

You know the variability of striped bass size distribution along the coast, and also different state management programs, different gear, size limits, et cetera. Then further, through CE, states have made adjustments to their commercial size limits over time, deviating from the historical standard size limit.

This has resulted in changes to some commercial quotas over time. Standard pound for pound transfers would be most efficient, but they wouldn't address this uncertainty of moving quota between states that catch different size fish. Per the Board's request, the PDT did discuss this. The PDT first considered a same number of fish approach. The intent here would be to transfer the same number of fish to the receiving state as would have been caught by the donor state under the transfer quota amount.

This analysis would require an average weight of commercially harvested fish for both states to convert from pounds to number of fish. After you have the average weight for both states, it's a pretty straightforward calculation.

However, the PDT discussed that determining what average weight to use could be difficult, because one, not all states have recent commercial harvest, and then two, for those that do, commercial catch and the size of the fish caught vary within the season, depending on gear type, time of year, or the area within the state.

The Technical Committee could provide some criteria to determine the average weight for each state, but there would still be some assumptions associated with those populations. Then second, the PDT considered a maintain spawning potential approach. The intent here would be maintaining at least equivalent spawning potential as the quota moves from the donor state size limit to the receiving state size limits.

This would require yield per recruit, and spawning stock biomass per recruit, YPR and SPR analysis, and this is the same methodology that's been used in commercial CE programs. This type of analysis requires several inputs, including natural mortality, weights at age, maturity selectivity curve, et cetera.

This approach could more thoroughly address concerns about different size limits, but it would be a complex and time-consuming approach, and would require likely a TC review. Ultimately, the PDT supports moving forward with a standard pound for pound transfer approach. You know considering the complexity of the alternative approaches, particularly considering that it potentially could be a small amount of quota that could be transferred, and those transfers again are voluntary.

The revised draft addendum is currently written with a standard pound for pound transfers, and there is a note about the inherent uncertainty of transferring a quota between states that catch different size striped bass. The PDT noted that this uncertainty could potentially be limited, if there are criteria set

to limit how much quota is transferred. That wraps up my presentation of the Draft Addendum, and I'm happy to take any questions.

CHAIR GARY: For efficiency's sake, I would like to go ahead and get Board feedback for Emilie, and you can either ask questions or comments. Before we do that, Emilie, you may have mentioned this, but can you characterize the current prohibition on the state transfers related to how the PDT recommendation compares for other species that have state quotas? Does that make sense?

MS. FRANKE: Sure. As far as the range of options. You can actually go to the next slide, two slides in, maybe. Yes, perfect. Most, I think all other ASMFC species that allow commercial quota transfers have something like Option B, sort of a general transfer provision, with no specific restrictions. The Option C through E would be generally more restrictive compared to other species that allow transfers.

CHAIR GARY: We'll open it up for questions and/or comments for Emilie. I'll look to the Board. All right, we'll start with Megan Ware and then Doug Grout.

MS. MEGAN WARE: This is a question for Emilie. Something I think I've been focused on is kind of what the PDT put forward that a pound of quota in one state is not equal in another state. I appreciate their discussion on trying to figure out the best way to handle that. I think the fact that the quota is tied to a limit makes it different from other species that allow quota transfers, at least for what I can think of, in terms of fishery management plans at the Commission.

In the spirit of trying to come up with a simpler approach to handle that, I'm wondering if the PDT discussed some sort of conservation tax and I'm getting this from the Lobster Fishery Management Plan where we have a conservation tax on traps. If someone had a 10,000-pound transfer and you had a 5 percent conservation tax, the transfer would be 9,500 pounds. It's a way to kind of address some of that uncertainty simply, but still allow transfers.

MS. FRANKE: The PDT did not discuss that concept. It did not come up.

MS. WARE: Well, I'll throw that out there for Board consideration. I don't know if anyone likes that idea, or if people don't like that idea. But it may be a way to address that discrepancy between the quotas.

CHAIR GARY: We'll go to Doug Grout and then Dennis Abbott.

MR. DOUGLAS E. GROUT: I had similar thoughts and concerns as Megan. You know when it came down to seeing this before I got the supplement materials with this potential addendum. I was thinking about all the different size limits and going, whoa, this is more difficult than other species, well the quota transfers.

When you came up with the options that you suggested here, one of the things that struck me was that in Option E, where the Board would set things up, you had some suggestions about potentially limiting the transferability, or the eligibility of a state to receive a transfer based on the percentage of the quotas landed. I thought that was a good way of dealing with it.

But I started to think that maybe we should have something like that as a concept under B, which gets back to your conservation tax, you know something where because we're in an overfished status, maybe you can allow some limited amount of transferability, that we would set ahead of time if we approved Option B. But we would need to have something where the Board, when they make the final decision, could say okay, only 90 percent of the quotas or 80 percent or something like that, which would get down to a transfer tax.

MS. FRANKE: I think I see what you're saying. I think that almost would be incorporated under the current Option D, where the Board has flexibility to set those types of criteria. But there are no criteria in there about this sort of conservation tax, this extra sort of, I guess penalty. I don't know if that is the right word for it, but a state would have to take by accepting a transfer.

I think maybe, if that is something the Board wanted to add, that could potentially be added as a criterion, maybe under Option B.

MR. GROUT: I thought under Option D, I was looking under Option D, because I'm looking for something, you know D and E are where the Board has the discretion to do it for a two-year period. I was trying to think if there was a way where we could just put this into an option that we could potentially accept when approving this Addendum, and then we just keep going forward, as opposed to every two years the Board making a decision on this.

MS. FRANKE: I see what you're saying, so it would be a sub-option of Option B where it would be transfers are permitted, except there is this conservation tax associated with it.

MR. GROUT: Final question if we were to do that, if we were going to make a motion to do that. Would that delay approving this for going out to public hearing, or could we just add that in with a motion here, and then sending this out to public hearing at this meeting?

MS. FRANKE: I think it might kind of be right on the line. You know it could be a general enough criterion that if the Board was comfortable, staff could add that in. But if you wanted to see it more fleshed out, then the PDT could meet and the process could be delayed until the next cycle. I'll turn to Toni.

MS. KERNS: One other option that the Board has that we've done rarely, but have done before, is send a text out to the Board to approve in an e-mail vote just on that one part.

CHAIR GARY: Doug, would that work for you?

MR. GROUT: It would. I was just having a sidebar with Megan, if she had given any thought to what the conservation tax amount would be, because then if we had something in mind, we could just give you some guidance on that.

CHAIR GARY: We can come back, but I will say we

would need a motion if this going to advance. Dennis, we have you.

MR. DENNIS ABBOTT: I don't know how big a can of worms we're opening here, and I do thank Emilie for putting all of this together. As we started this it might have seemed like a simple task to enact some sort of a transfer system. But as we peeled the onion back, there are so many factors involved. One of the things that I would like clarity on, or might be helpful in my decision making would be to know,

I think you said in your presentation that something like 76 percent of the commercial quota is utilized most recently. I would be interested in knowing which states are using their commercial quota entirely, which states would become interested borrowing states, or using 100 percent of their quota, which aren't, and what is the total of that say 24 percent unused quota.

What does that represent in poundage? You know how much striped bass would we be looking for to transfer? I'm not opposed to this entirely, but I think there is still, to me, a lot of unanswered questions that we should know. I'm not sure what the acceptance rate would be, undoubtedly by transferring quota we would be in some sense increasing mortality, and that goes along with our previous discussion also of where we're going with striped bass recovery. Those are just thoughts that I had.

MS. FRANKE: I can respond to your question about quota utilization. We did include a table with state-by-state quota utilization, and in 2021 all states that have a commercial fishery used almost 100 percent of their quota. About 13 percent of the ocean quota is held by North Carolina, and they've had zero harvest for the past decade or so. Then about 10 percent of the ocean quota is held by states that prohibit commercial fishing.

MR. ABBOTT: That's a good answer. Are we really curing a problem by going in this direction is my question.

CHAIR GARY: John Clark.

MR. CLARK: In answer to Dennis, the reason we brought this up is because yes, it is an approach to a problem that I think we've been bringing up here for, I don't even remember when we started on this process. But it was probably back when the halcyon days, when striped bass were not overfished. But here we are. Anyhow, my question was, Emilie, you had one slide where it had something that the Board had to decide on. Does that need to be done before we can approve this for public comment, or is that something that can be done after the fact?

MS. FRANKE: I think it would be best to address that question. This is the question about the 45-day provision. I think if we left it in, could the Board take it out upon final approval? Yes, okay, it's okay to leave it in now. The Board could take out that 45 provision later if they wanted.

MR. CLARK: To the point that Megan and Doug made. If the Board wanted something like that, could we approve the Addendum for public comment and add that provision in before it actually goes to any hearings?

MS. FRANKE: Yes. To your question about the 45-day period, that could be decided later at the time of Addendum approval. To the option that Doug and Megan were potentially talking about, which is that conservation tax criteria. Yes, I think as Toni mentioned, we could sort of in the next week or so.

If there was some text staff could put together to come up with a sub-option. It could be approved by the Board via e-mail. It could be put into the Draft Addendum approved for public comment. I think we would still need a motion to add such a sub-option with the text finalized in the next week.

MR. CLARK: In that case, Mr. Chair, would it help to have a motion on the table to further this discussion, or would you rather wait on that?

CHAIR GARY: It would.

MR. CLARK: Okay, well in that case, I would like to move for the Board to approve Draft Addendum I to Amendment 7 to the Atlantic Striped Bass

Interstate Fishery Management Plan for public comment.

CHAIR GARY: Do we have a second to Mr. Clark's motion? Pat Geer. All right, I'll open it up for discussion on the motion. Go ahead, John.

MR. CLARK: Yes. As I think everybody is aware, Delaware has been bringing this up. I think everybody knows our Commissioner Craig Pugh, who is a commercial fisherman, that this is a valuable small-scale fishery. Once again, we are not talking about a lot of striped bass in the grand scheme of things here.

I also want to point out, of course, that commercial fishermen target striped bass in our area, because there is a market for this and everybody in the Mid-Atlantic enjoys having striped bass in the springtime. It's a very big item in restaurants and for the public. You know once again, this is something that would just be very helpful in states like Delaware, as we know we've got this sporadic allocation system, based on the 1970s landings.

This gives us a way, without going through the full reallocation process, which we know will be difficult, to allow a state that as anybody who looks at Table 2 can see, Delaware does utilize its quota. We have a very good accounting system. We have double tagging, where the netters have to tag every striped bass, they catch. They then have to take it to the weigh station where it gets another tag.

Both, report daily. This is not a situation where we're just looking for more, and there is a lot of problems with our system. I think we have a very good system. We certainly understand the striped bass is currently in an overfished status. But at the same time, we think, hopefully, as things improve, that the Board could see fit to allow a state like Delaware under these very controlled conditions, to get a little bit more quota.

CHAIR CLARK: Pat, as the seconder, do you have any comments?

MR. PAT GEER: No, I would just like to add. I don't

think John is looking for a whole lot of quota. John, I think it wasn't a whole lot you were looking for.

MR. CLARK: No, we would not be asking for all of North Carolina's unused quota, obviously. You know just starting off small.

MR. GEER: I think this Addendum also, it has enough flexibility in there. If the Board decides they don't want to do this. Some of those options allow the Board to make that decision, so I think in that regard, I would like to see it move forward with the options that are in here.

CHAIR GARY: Any other comments on the motion? Eric Reid.

MR. ERIC REID: I actually, when Mr. Pugh made the original motion to go down this road, I actually seconded that motion, because I was interested in it. I have no problem going out to the public. But to Mr. Abbott's point. Other than Chris Batsavage is going to be the most popular man in the entire world. I'm not really sure where quota will come from. You've got Maine and New Hampshire have no commercial fishery, and their total quota is about 6,000 pounds, maybe, something like that.

Connecticut and New Jersey give their quota to their recreational sector, so there is probably zero available there, which leaves North Carolina as, like I said. But that is just a comment more than anything. This is not an easy lift. There is going to be a lot of discussion about it. But thank God Delaware only wants a handful of fish, because that's all that is really going to be available. I guess that's my point, so thank you.

CHAIR GARY: Megan, did you have a comment?

MS. WARE: I would like to make a motion to amend. I'll read it and then I have it on a piece of paper, so I'll pass it to staff. But it would be keeping the first part of the original motion, so move to approve Draft Addendum I to Amendment 7 to the interstate fishery management plan for public comment.

Motion to Amend to add that if a stock is overfished, apply a 5% conservation tax to address the discrepancy that a pound of striped bass quota is not equal across all states, and it will apply to Option C and D, and if I get a second, I'll just provide one more piece of rationale.

CHAIR GARY: Doug Grout seconds that motion to amend. Great, Megan, back to you. Do you want to go ahead and describe your action?

MS. WARE: Yes, I think people understand the idea. I think this is going to be a criticism that we hear in the hearings that the quota is tied to the side limits that states have. This is trying to preemptively address a comment that I think we're going to hear pretty strongly at the hearings.

CHAIR GARY: Doug, as a seconder.

MR. GROUT: Yes, Mr. Chairman, and what this gets for my point of view is an option where we don't have to go to the Board every two years to put these things in place. It just gets put in place; it is done with. Sufficiency.

CHAIR GARY: Cheri Patterson.

MS. CHERI PATTERSON: I'm definitely for this motion to amend. My question is, to Megan, 5% is arbitrary, so are we still going to have the TC or PDT take a look at this, to see if maybe they can come up with something less arbitrary? Because I know I'm going to get, how did we get that 5% conservation tax number, when we get into the public meetings.

MS. FRANKE: To get PDT or TC feedback, we wouldn't be able to approve it for public comment today. We would have to have a PDT or TC meeting, so that would be the choice of the Board if you wanted to go forward with approving it for public comment today with a number, of getting some PDT Feedback. Toni has a comment.

MS. KERNS: Emilie, I don't mean to put you on the spot, but the PDT did talk about, and you presented on the issue of the pounds not being equal across the board and they did not provide an option for the

document. I'm not sure the PDT is going to be able to provide you a ton of feedback, based on that response from the PDT. I'm not going to speak for all the members, but that would be a sense that I might have, and I don't know what the TC will provide back as well.

Unless you have a more specific question that you want them to get at. I guess it's the appropriate amount. You could have a range, and then the TC could look at it while the comment is going out, if you want to expedite this. I'm just trying to help the Board have a path to approve this today, because it seems like that is what people are looking to do. If that's what you wanted to do, you could give a range and the TC could comment on that range.

CHAIR GARY: Cheri, do you have any additional thoughts? I think Megan also wants to make a comment.

MS. PATTERSON: Yes, I think we're doing a little sidebar here between me and Megan.

MS. WARE: Yes, I mean I think it's a fair criticism that the 5% is ad hoc. This is just trying to minimize some discrepancy that we see between the different state's quotas. I'm not trying to make this more complicated than it already is turning out to be. I think a priority is approving this for Draft Addendum today, so I'm fine with a 5%.

CHAIR GARY: All right, any other comments from Board members? Tom Fote.

MR. FOTE: It's interesting sitting in this room, because the last time I sat in this room was a striped bass hearing that NOAA was putting on. Bill Hogarth was the hearing officer. This was when they opened the EEZ, and that was 1995. Winds up Bill says, you made me rent this room to sit all those people in. You're going to have empty seats. I said, I'll bet your dinner.

At the end of the night there were over 950 people in this room, so Bill bought me dinner, and it had to do with striped bass. It seems like it was a pertinent issue, and it was keeping the EEZ closed. But I think

I just threw that in, because that was the last time I was in this room.

CHAIR GARY: Thank you, Tom, Katie, I think you have a comment.

DR. DREW: Yes. I think to Cheri's question about like, is there a hard and fast number that we could come up with. I would say from a technical standpoint, the TC hasn't discussed this but the PDT has. I was part of those discussions. I think the PDT came to the conclusion that if there was a way to do this quantitatively, they would have done it and provided you with that as a way to correct for that. I think it comes back then to the Board's sort of risk tolerance of how risky or how conservative do you want to be, recognizing this is a source of uncertainty that we can't really quantify.

MS. FRANKE: I guess I would add to that, that I think the PDT noted that it could be maybe quantified, but it would be like every transfer would be unique. It wouldn't be a simple calculation in any way.

CHAIR GARY: Cheri, go ahead, you were going to reply to that. Then I'll go to John.

MS. PATTERSON: Follow up, thank you, Mr. Chair. Yes, I'm fine with the 5%, but I think we just have to make sure that we understand at the public hearing that we need to just indicate this is arbitrary numbers.

CHAIR GARY: John.

MR. CLARK: I just want to be clear. In other words, if a state asks for 100 pounds, they get 95. Is that? Okay. They better not ask for 110 then, right?

CHAIR GARY: Thanks, John, Pat Geer.

MR. GEER: Just to be clear under Option D. The Board has the discretion to do what they want if that option is selected in the final Addendum. In that regard it's not needed. This motion is not needed if Option D is selected, because we can put, you know we've already talked about you already have to have 90 percent of your quota landed for the year. We

talked about having a maximum amount of transferability. I don't think it's needed for Option B.

MS. FRANKE: Just to respond to that. The Option D provides two types of criteria the Board can specify, the state eligibility and then also how much can be transferred. By adding this provision to Option D. You know this would be in a situation where the Board decides to allow transfers when the stock is overfished. Then this would come into play. You know the Board could still decide whether or not to allow transfers when the stock is overfished. If they do, then we would just have this 5% conservation tax built in.

CHAIR GARY: All right, so any other discussion or are we ready to call the question on the motion to amend? I'm sorry, Mike, go ahead.

DR. ARMSTRONG: I might be missing something. But John was being facetious, but it's absolutely true. If I was coming for 100,000 pounds of quota, I would ask for 110, and I would get exactly what I wanted. It has zero conservation value. Isn't that correct? We can ask for whatever we want. I'll leave it at that for this. I have lots to say about whatever becomes the main motion, but I won't start with that yet.

CHAIR GARY: Steve Train.

MR. TRAIN: Mike, the way I see this is that there is going to be a lot of unintended consequences. I just said to John, you know if we get this through for Delaware, that he's going to be fighting three other states for the fish out of the Carolinas. He might not even get it. But if you've got a 5 percent transfer tax, before all that fish is gone, 5 percent of that quota that's being transferred is going to disappear to protect other fish. Even if it doesn't meet what you just said, because he's going to get his full hundred pounds. There will be fish saved.

DR. ARMSTRONG: If I could just respond. Under the condition that we use all the latent quota, which we can get into that in a second.

CHAIR GARY: All right, thank you. If there isn't any other discussion, we'll go ahead and call the

question on the motion to amend. Let's try this. Is there any opposition to the amended motion, the motion to amend? Seeing none; the motion to amend passes. Now that is the original motion. For the record I'll ask again. I'm going to go ahead and read the main motion into the record, and then we'll have a discussion.

We'll go ahead and read this into the record. Move to approve Draft Addendum I to Amendment 7 to the ISFMP for public comment, if the stock is overfished, apply a 5% conservation tax to address discrepancy that a pound of striped bass quota is not equal across all states. This would apply to Options B and D. Any additional discussion before we take a vote? Tom Fote.

MR. FOTE: Can I have a minute to caucus?

CHAIR GARY: One minute for a caucus, and then we'll vote. All right, let's go ahead and try to see if we can achieve consent. Is there any objection to the main motion that is up on the board? Seeing no objection, the motion passes.

REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP

CHAIR GARY: Are we ready to move on, Emilie for our next item on the agenda, is Number 6, Review and Populate Advisory Panel Membership. Tina.

MS. TINA L. BERGER: I offer for the Board's consideration and approval the nomination of Craig Poosikian, commercial rod and reel fisherman from Massachusetts.

CHAIR GARY: We have a nomination, Ray.

MR. RAYMOND W. KANE: That's Craig Poosikian, he's been a lifelong commercial, recreational, shell fisherman, hook and line, striper fisherman. I've known him for years. He was born and raised in Tom Fote's foreign state of Jersey, and then he moved to Massachusetts. I'm recommending him for the AP. I think he'll be an addition to the AP. Yes, by all means. **Move to approve Craig Poosikian,**

representing Massachusetts to the Striped Bass Advisory Panel.

CHAIR GARY: Got a second, Justin Davis. Anyone in opposition? Seeing none; the motion passes. Toni.

MS. KERNS: I just want to note to the Board that we just approved an Addendum. It is November 7th today, and our meeting is at the end of January, which means we are going to have a very tight timeline with the holidays to get these public hearings done. Please, consider having joint hearings with your neighbors, maybe a webinar hearing, and responding to Emilie as quickly as possible, so that we can get the notice out to the public, and have these hearings on the Addendum. Bob now has information when we're done.

ADJOURNMENT

CHAIR GARY: All right, is there any other business to bring before this Board? Seeing none; we'll seek a motion to adjourn. All right, and then Bob, we'll turn it over to you.

(Whereupon the meeting adjourned at 5:25 p.m. on Monday, November 7, 2022)