

PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
ATLANTIC HERRING SECTION

The Westin Crystal City
Arlington, Virginia
August 7, 2018

Approved October 22, 2018

TABLE OF CONTENTS

Call to Order, Chairman Patrick C. Keliher..... 1

Approval of Agenda 1

Approval of Proceedings, May 2018 1

Public Comment 1

Review and Consider Approval of the 2018 Atlantic Herring Benchmark Assessment (SAW 65) 1

 Presentation of Stock Assessment..... 2

 Peer Review Report 9

Consider Benchmark Stock Assessment and Peer Review Report for Management Use 10

Discuss Recent NEFMC Recommendation to NOAA Fisheries on the 2018 Sub-Annual Catch Limits 15

 Reconsider ASMFC 2018 Sub-Annual Catch Limits 15

Provide Recommendations to the NEFMC on 2019-2021 Fishery Specifications..... 19

Other Business 23

 Advisory Panel Nominations 24

 Consider Recommendation to Change the Herring Section to a Board and Invite the
 NEFMC to Hold One Voting Seat 24

 Discuss Spawning Protection..... 28

Adjournment..... 29

INDEX OF MOTIONS

1. **Move to approve agenda** by Consent (Page 1).
2. **Move to approve proceedings of May, 2018** by Consent (Page 1).

Please note: Due to a technical issue the first five minutes after the break shown on Page 19 was not recorded; The following is the motion made and passed during that period:

3. **Move to reconsider the 2018 Atlantic herring sub-ACLs so that they match those promulgated in season by NOAA Fisheries. Implementation of these revised sub-ACLs is contingent upon NOAA Fisheries making an in-season adjustment to the 2018 Atlantic herring sub-ACLs. The revised 2018 sub-ACLs would become effective upon notice from NOAA Fisheries that they have been implemented in federal waters. In addition, recommend that the 2018 Area 2 sub-ACL be set at 8,200 metric ton as consistent with the NEFMC recommendation.** Motion by Eric Reid; second by Raymond Kane. Motion carried.
4. **Move to approve Beth Casoni and Gerry O'Neill to the Atlantic Herring Advisory Panel** (Page 24). Motion by David Pierce; second by Eric Reid. Motion carried (Page 24).
5. **Move to recommend the Policy Board change the Herring Section to a Board and invite the NEFMC to have one voting seat. This action is conditional on NEFMC adding an ASMFC staff seat to their Herring PDT and an ASMFC seat to the Herring Committee, with the understanding that is not the same person** (Page 26). Motion by Eric Reid; second by Pat Keliher. Motion carried (Page 28).
6. **Motion to adjourn** by Consent (Page 29).

ATTENDANCE

Section Members

Pat Keliher, ME (AA)	Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Doug Grout, NH (AA)	Pete Aarrestad, CT (AA)
G. Ritchie White, NH (GA)	Sen. Craig Miner, CT (LA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	John McMurray, NY, proxy for Sen. Boyle (LA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Maureen Davidson, NY, proxy for J. Gilmore (AA)
David Pierce, MA (AA)	Tom Fote, NJ (GA)
Raymond Kane, MA (GA)	Joe Cimino, NJ, proxy for L. Herrighty (AA)
Bob Ballou, RI, proxy for J. McNamee (AA)	

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

Ex-Officio Members

Staff

Robert Beal	Megan Ware
Toni Kerns	Jessica Kuesel

Guests

Rachel Baker, NOAA	Michael Pentony, NMFS
Ellen Boler, VMRC	Bryan Plumlee, VA (GA)
Matt Cieri, ME DMR	Nick Papoff, ME DMR
Zach Greenberg, PEW Trusts	Sam Rauch, NOAA
Sarah Heil, NOAA	Abden Simmons, MEFA
Peter Himchak, Omega Protein	Melissa Smith, ME DMR
Peter Kendall, NEFMC	Darrel Young, MEFA
Aaron Kornbluth, PEW Trusts	

Please note: Due to a technical issue, the first five minutes after the break was not recorded; The motion made and passed during that period is shown in the Index of Motions

The Atlantic Herring Section of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia; Tuesday, August 7, 2018, and was called to order at 10:30 o'clock a.m. by Chairman Patrick C. Keliher.

CALL TO ORDER

CHAIRMAN PATRICK C. KELIHER: We'll start the Atlantic Herring Section meeting a little bit late. We apologize; the Executive Committee ran over just a tad. I'm going to call the meeting to order. We've got a few additional items on the agenda; but before we go there, both of the other two Commissioners from the state of Maine were not able to attend today.

This is their busy time of year; both Steve Train from a lobstering perspective, and Senator Langley, because of his restaurant in Ellsworth, so I'm it. My plan is to Chair this meeting; and if we get into a situation where I have to advocate on behalf of Maine on a specific position, I will turn the meeting over to Bob, in regards to running that portion of the meeting if we have to make any motions.

Does anybody have any objections to that approach? Seeing none; thank you. You have objections to that approach, Toni? Okay. Don't confuse me. We do have some additional items on the agenda that we'll take up under other business. One is revisiting the issue regarding moving the Section and turning it into a Board. This is a result of conversations that leadership from the Council and the Commission had; and Bob can give some additional information when that portion comes up.

Because of that conversation, because we're going to deal with some of the issues related to Council work on A8, Peter Kendall, who is the Herring Committee Chair, is here in a great

spirit of cooperation. He expected to be hiding in the back of the room; but I said no, with that shirt on he needs to sit up at the front. Then we also have AP nominations. Is there any other business to be brought before the Section? Ritchie, did you want to address?

MR. G. RITCHIE WHITE: We had discussed talking about spawning issues going forward. Is this something that you would like to delay until the October meeting?

APPROVAL OF AGENDA

CHAIRMAN KELIHER: Because we're a little bit behind schedule, why don't we put it at the end of the agenda? If we get to it today we can start the conversation; and then if we don't have additional time we can finish it in October. Are there any other additional items for the Section?

APPROVAL OF PROCEEDINGS

CHAIRMAN KELIHER: Seeing none; the proceedings from the May, 2018 meeting were in your packet.

Are there any additions, deletions, corrections to those proceedings? Seeing none; I will take that as approval of the proceedings from the May, 2018 meeting.

PUBLIC COMMENT

CHAIRMAN KELIHER: We've got a few folks from the public here today. Are there any public comments on items that are not on the agenda?

REVIEW AND CONSIDER APPROVAL OF THE 2018 ATLANTIC HERRING BENCHMARK ASSESSMENT (SAW 65)

CHAIRMAN KELIHER: Seeing none; we'll go to Item Number 4, Review and Consider Approval of the 2018 Atlantic Herring Benchmark Assessment. There potentially is an action here; but because the peer review has not been completed, we are in a little bit of a quandary.

We may want to consider a motion that is conditional in its approach. But I think we'll go through the reports from both Matt Cieri, and are you doing the presentation on peer review? There will be none. The agenda is incorrect. We'll have a presentation on a stock assessment from Matt. After he presents a stock assessment report, we'll review the comments of the peer review which following the presentation there will be a time for questions and comments. Then we'll figure out what path forward will be from there. With that Matt, I'll turn it over to you.

PRESENTATION OF STOCK ASSESSMENT

DR. MATT CIERI: My name is Matt Cieri. I work for the Maine Department of Marine Resources. I'm on the Herring PDT, the Herring Technical Committee, as well as the Work Group that did the SARC this year. This presentation is for the stock assessment that we completed this past June; well this past May, and was actually peer reviewed in June.

Some of these slides have been ripped off from John Deroba; he's the primary analyst for Atlantic Herring from the Population Dynamics Center. Back in 2012, we had a little bit of a retrospective pattern associated with this stock. That tended to overestimate SSB, and underestimate F in the terminal year.

One of the ways to fix this sort of problem was to increase the natural mortality rate by about 50 percent; starting in about 1993. When we did that we noticed that it actually changed the natural mortality rates so that it sort of matched the consumption seen by the Food Habits database from the bottom trawl for National Marine Fisheries Service.

On this axis we have consumption; or the associated consumption. Year is on the Y, I mean Year is on the X, sorry. The dotted line is what happens from the model if you assume that sort of natural mortality; what that sort of translates in as far as consumption goes. The

orange and black lines are the actual sort of model consumption from the NMFS bottom trawl Food Habits database. As you can see; they pretty much line up fairly well. This is when we actually increase the natural mortality rate by about 50 percent in 1993.

We got through that assessment. It sort of helped the retrospective pattern immensely; and so we moved on. Then we went to go update the assessment in 2015 and we did exactly the same sort of run; where we broke the natural mortality and sort of increased it by about 50 percent. Afterwards it didn't seem to match the consumption quite so well. More to the point, it actually didn't really solve the retrospective pattern anymore.

We were kind of left with this whole issue of, we've got a retrospective pattern that is overestimating SSB and underestimating F relative to the terminal year. We ended up, because that was an update and not a benchmark, all we did was do a Mohn's rho correction. Basically we correct downward for SSB and upwards for F in the terminal year; to figure out stock status. This year, in 2018 we went through and we did a continuity run; which is basically we just take the last model, we put new data in it, and we run it. When we do that you'll notice a couple of things. The first is the blue line is the 2015 run. There is SSB here on the top panel. The blue line is the SSB from the 2015 run. The red line is the SSB if we simply just updated the information; right if we just simply put in new data. That black diamond there is the retrospective adjustment that we did in the 2015 assessment.

One of the first things that you'll notice is our retrospective adjustment in 2015 seemed to be fairly dead on. It actually brought that spawning stock biomass down in the final year; to what we think it is. But that there is a very large difference between just simply adding in the data and this is all due to the retrospective pattern change.

Not only does the retrospective pattern sort of change things in the terminal year. But it also changes things back further. You'll see that throughout the entire time series, or nearly the entire time series, back to almost 1989. You're actually ratcheting down spawning stock biomass. You can also see that the recruitment, the differences in recruitment between the blue line and the red line are also fairly significant.

Ratcheting down what we've seen in recruitment over the last few years as well. It was pretty clear, sorry one more slide on retrospective patterns, sorry about that. For those people who are familiar with this type of thing, we're looking at a Mohn's Rho in the terminal year of about 0.73. That is actually pretty darn high.

It was pretty clear that this active retrospective pattern was going to preclude us from simply doing a simple update. It was back to the drawing board. This is something that is not unexpected. But we ended up doing was actually taking a look at a few different types of modeling approaches.

We basically just started from scratch again; which is something that you can do in a benchmark assessment. I think it's always a good idea to at least take a look at. We took a look at three different models. We looked at ASAP, which is the model that we've used previously; and actually what is our base run for this time around.

We also looked at SAM; which is a state space model that is currently in use a lot in ICES for Baltic herring and North Sea herring. We also used SS3; which is something that's used out on the west coast quite a bit. The stock synthesis, the SS3 model that was developed was done by SMAS, and it was actually spatially explicit.

It had a lot of issues; in particular because we don't really know a lot of the migration rates back and forth between the subcomponents of Atlantic herring, and also partially because

when you catch herring in sort of these mixed areas, you really can't identify what's Georges Bank, and what is Gulf of Maine herring.

As some of you may already know, herring are sort of broken into two large subcomponents; the Gulf of Maine spawning component and the Georges Bank spawning component, and we assess them together. But they do tend to mix together during times in which they're not spawning. When they're feeding they tend to be a little bit fairly well mixed. However, they are separate spawning components. That is a very complex thing for a model to actually go through and look at; particularly when you don't have the data. The SAM model that we took a look at was actually kind of definitely, definitely cool. But the Workgroup wasn't quite as familiar with this sort of formulation. We relied almost exclusively on the ASAP model. There is an appendix and a working paper that deals with the SAM model; as well as comparisons between ASAP and the SAM model. There are some fairly significant differences.

Let's start off with fishery dependent data. Stop me if I'm boring you, hah. Fishery dependent data, one of the first things that we have actually is catch, of course. As you can see year is on the X, catch is on the Y, and we have two separate fleets in this particular model formulation. One is fixed gear; which isn't gillnets, like most people think, but is actually stop seines, weirs, and pound nets. These are fixed stationary gears used predominantly in Maine; but also in a few other places, as well as New Brunswick, Canada.

There is also the mobile gear fleet; which are purse seines and midwater trawlers, you know that you guys are more familiar with. As you can see; catches were really high back here during the ICNAF fisheries when the Russians were in the Gulf of Maine and Georges Bank before the 200 mile limit. Catches sort of declined in the late 1970s early 1980s, and then

rebounded again and been on a slight decline ever since.

The other thing that we have in fishery dependent data of course is age sampling. This is actually a very important part for an age-structured model, as you can possibly imagine. On this axis we have year, and on this axis we have age. The bubbles that you see here represent the proportion of the catch that is that age.

If you follow this sort of bubble plot, you can make out that there are some very strong year classes. There are strong year classes back here; and then more recently there is a strong year class here with the 2008 year class and the 2011 year class. What I want to show you here in particular is what you don't see.

What you're not seeing are Aged 2s and Aged 3s in the 2015-2016 range. This represents sort of a hole in the age structure of Atlantic herring; and we'll get into why in a few minutes. We also have weights at age. We've had a dramatic shift in weight at age in this population. It was much higher back here in the '70s, '80s, and almost to the early '90s. But then it dropped precipitously, I'm sorry in the mid-1980s.

Since then it has been variable; but it has stayed about the same level. The other thing that comes into this, of course for any type of modeling approach, is to look at maturity. Maturity is actually a really important component when you start trying to figure out things like spawning stock biomass. You need to know how many fish are mature; before you can figure out how much spawning stock biomass you have.

We went through and we did this again from scratch. What I want to show you is the black line here is the maturity schedule; and you can see that it's near zero for Age 1 fish, goes up to Age 2 by a little bit, is almost 50 percent mature at Age 3, and is nearly about 90 percent mature by Age 4. What you can see here again, is by

Age 4 they are nearly fully mature. However, the selectivity is measured by the model this time around, shows that they're not actually fully selected by the fishery at Age 4, in fact they're less than 50 percent selected by Age 4. In this model formulation they're not actually fully selected, they are not fully exposed to the fishing mortality until they're Age 7. They mature at Age 3 and 4; they are not fully actually exposed to the fishery until Age 7.

We also looked at some other data to round out our fishery dependent stuff. This other data includes from the observer data, the at-sea observer data from National Marine Fisheries Service, as well as the FLDRS, the fishery logbook and data recording software that is new this year. Mostly what this was doing was just trying to take a look at whether or not discarding was an issue.

For lots of years now it's been believed; and actually there is a lot of data to support that relative to Atlantic herring catch, Atlantic herring discards in the Atlantic herring fishery are fairly minimal. On to fishery independent data, we've got only a certain number of trawl surveys in which to actually take a look at.

We have the spring and the fall National Marine Fisheries Service Bottom Trawl Sampling. That is a fishery independent survey. Previously, and again this time around, we've broken them into time series. The first time series for National Marine Fisheries Service Bottom Trawl Sampling occurs prior to 1984, and then we broke it, used it as a separate survey in the model past 1984.

We did that specifically because it was a door change that made an actual real difference in the amount of Atlantic herring that they catch. In past assessments, and in 2015 and in 2012, we sort of merged that change in the NMFS Bottom Trawl Sampling from Albatross to Bigelow using a conversion factor.

This past assessment we were actually able to put the Bigelow time series as its own separate

index into the model; and that's because the calibration coefficients for Atlantic herring could be considered somewhat difficult, because it is a pelagic fish that you're catching in a bottom trawl. Now we've got for just the National Marine Fisheries Service Bottom Trawl Surveys we've got six different indices; fall and spring, prior to 1984, past 1984 to 2009, and then post 2009.

In addition we also have the summer survey, which is named the Shrimp Survey that covers a good portion of the interior Gulf of Maine, and actually samples both inshore and offshore components. Again more bubble parts. This is the time series for the Bigelow for fall. Notice that there is nothing past 2009, which is really good, because they weren't running the survey past 2009. I would be really worried if we did have data back there.

You can again see that there is some strong year classes; again starting here in the 2008 range for Age 2s, 2006s and again for 2008. What you don't see is Age 2s and 3s in the '16 and '17 timeframe. Again, even the fishery independent indices are showing that there are very few younger fish in the population.

There is actually a new survey or a new index that we put in the model this time. This is an acoustic survey; again from the bottom trawl. It's a great research platform; by the way. We can get so much data from it. In this particular index, what's used is an actual acoustic sounder onboard, and has been on board since about 1998. As it goes from place to place, as it does its bottom trawling, as it moves from station to station. It is continuously collecting acoustic information, acoustic signals from Atlantic herring. Mike Jech from National Marine Fisheries Service actually cobbled this together into an index; so that we can actually use to survey the entire Gulf of Maine.

From an analyst perspective, what this does is while there might be some difficulty catching Atlantic herring with a bottom trawl; this sort of

takes that information out of the picture. You just have to drive over them; in order to see them as a good scientific index. We found this to be actually pretty useful in this particular assessment model.

There were other indices which we considered; but we ended up not putting in this particular model. The first is the National Marine Fisheries Service Winter Bottom Trawl; or the Flatfish Survey. That is partially because it had lots of inconsistencies in its area of coverage. It's again, centered more on flatfish than Atlantic herring.

The state surveys were for Maine and New Hampshire as well as Massachusetts, are important. But they only survey the inshore spawning component; they don't actually survey the Georges Bank component, and as a result are probably not useful for a model that's based on the entire stock complex.

There is also something new this year that we tried; which was a Food Habits Index. This basically, as Jon describes it, using predators like striped bass or monkfish or skates as an actual research platform; and actually using their information in their guts from the Food Habits database, to figure out an index for Atlantic herring.

On to the parameterization, one of the first things of course that we need to talk about is natural mortality, and so as I suggested earlier in this conversation, in 2012 we used a variable M at age, which was scaled to a maximum age. See if you can think about this. In 2012 we had a variable natural mortality that was static across all years; but in 1993 onward, it was ramped up by 50 percent.

That sort of matched the consumption that was coming out of the National Marine Fisheries Service Food Habits database. In 2015, we used this same sort of variable natural mortality at age, which we call Lorenzen, because it's based on size. But we didn't do a 50 percent increase;

and that's because there wasn't really any justification.

It didn't solve the retrospective pattern, as I showed you, and it also didn't match the Food Habits database. That whole split of that 50 percent increase was actually not done in 2015. During this past assessment in 2018, we actually removed the variable natural mortality at age. We did that as a workgroup for a lot of different reasons.

One is this idea of parsimony, the idea that your simplest answer is probably going to be your best answer. More to the point, when we remove that sort of natural mortality at age, the model fit dramatically improved, or slightly improved I should say. The other thing is that when we ran side-by-side comparisons using natural mortality at age variable and static at one number, there wasn't any difference in the results. We got the same results, we got the same reference points, and we got the same pretty much everything. It was decided by the Workgroup to actually use one value for natural mortality. That value happens to be 0.35. That was the static natural mortality for all ages across all years for Atlantic herring.

When you do that you get this black line; which is the assumed consumption, if you assume that fixed rate of natural mortality. The blue line is the results from the Food Habits database; and as you can see it matches on some level. There is certainly a lot of variability; but it doesn't do quite a bad job at matching the Food Habits data that comes out of the National Marine Fisheries Service.

Note that these are all on the same scale; so they are not on separate scales. Another pretty dramatic change in this model, and I kind of alluded to it earlier, was about selectivity. Selectivity or when these fish are actually vulnerable to the fishing that's occurring within the area.

In 2012, when we went through the benchmark, we ended up with this particular sort of selectivity curve for the mobile fleet. The black line is mobile fleet; the blue line is the fixed gear. Taking a look again at sort of a reference Age 4, in 2012 Age 4 was about 50 percent selected by the fishery; meaning that when they were mature they were about 50 percent exposed or 50 percent vulnerable to the fishery.

They were fully exposed by Age 5. I'm sorry they were 70 percent exposed at Age 4, my bad. Doing this formulation, they are 50 percent exposed to the fishery here at again about Age 5, but aren't fully exposed to the fishery until Age 7. What's happening is we've shifted that selectivity curve backwards, or towards the right.

That means that herring are older when they're first and when they're completely exposed to fishing mortality in this fishery. That actually has some pretty important implications. Before we can really talk about a lot of the results, let's talk about recruitment, folks. On this axis is SSB, and on the Y axis are recruits.

This kind of looks like you went out hunting for birds. It's pretty much a shotgun, sort of blast. For those of you who are familiar with menhaden, or who are on the Menhaden Board, you've seen this sort of pattern before. It's pretty much the same issue that has arisen in menhaden. There are a couple of things to note. One is that '15, '16, '14, they're all down here; so all of the recruitment over the last few years has been pretty low.

More to the point, the difference at the same biomass between 2015 and 2008, there is a huge spread. That huge spread for the same biomass makes it almost impossible to figure out a stock recruitment relationship. There is that much variability. Thinking about it that is a huge difference to have that is a huge amount of variability to have at the same biomass over time.

The unfortunate part about all of this is the model actually produces recruitment over time. Here we are in the most terminal years; here is recruitment again, here's year, and here is our recruitment recently. As you can see from this particular graph, 2016 was the lowest recruitment on record. We've had low recruitment now or below median recruitment since about 2012. This is our estimate of recruitment. I will note that the last two years have CVs that are greater than 1. But as one of the Peer Reviewers pointed out, the CV on the last year was 2. Even if you double that number, you're still below the median.

To sort of drive this point home, this is the recruitment here. This will be your 2021 SSB. This next year will be your 2020 SSB; if you assume that they're fully mature at Age 4. This will be your 2019 SSB. Pretty much for the next specification cycle the recruitment is already there. We already have an estimate of it; and it's not particularly high, it's certainly below the median average.

As I alluded to earlier, because it's such a shotgun pattern we are unable to actually figure out a stock recruitment relationship. We're using median recruitment. This means if you look along this line, your recruitment from the model here is the same as it would be here. You get the same amount of fish for surprisingly different levels of biomass.

This of course leads us to a problem with our reference points. In 2015 our reference points were based on a Beverton Holt stock recruitment fit. We got this sort of MSY of 77,000 and F at MSY at about 0.24, an SSB at MSY of 311, and the stock status was not overfished and overfishing wasn't occurring.

During this assessment we don't really have an estimate of a stock recruitment relationship; so you can't produce MSY reference points when you don't have a stock recruitment relationship. As a result we've started using an F SPR proxy at 40 percent. This sort of proxy you guys might

know it from menhaden. It's something that we do in a very similar way,

This sort of SPR at 40 percent is something that is used on the West Coast quite often. This leads us to an MSY proxy, an MSY value of 112,000 metric tons; significantly different or significantly higher than the MSY value we had previously. The F at MSY proxy is about 0.51. There is a little bit more than double the F at MSY previously; but we should also note that F at MSY applies to fully selected fish, which in this case are no longer Aged 4s, but are now Aged 7s.

The SSBMSY proxy snow is 189,000 metric tons. This is quite a difference in biological reference points. Likewise, the biological reference points that we're currently using are no longer valid. You really can't justify them and you can't translate them. Getting into more of the results from the document, we have biomass, year, we have in the red is total biomass.

The dash line is SSB, and the green line is exploitable. As you can see, total biomass, spawning stock biomass, and exploitable biomass, all of these were high back here in the late 1960s and '70s, declined to the early 1980s, increased again in the late '80s, early '90s, has remained fairly flat until the 2000s, and then has taken somewhat of a shallow decline, and then an increase in decline in the last few year as a result of low recruitment.

The other thing to note is that in here your total biomass and your SSB have become closer and closer together. What this is saying is that most of your biomass now is SSB or mature fish; and that is that lack of recruitment that we've seen over the last few years. F sort of gives you a similar pattern to what you would expect. Over the time series where I want you to concentrate on the black line, here has been your F, which has been slowly declining here in the late '70s to the early '90s. There has been somewhat of an increase in the mid-1990s all the way up to the late 2000s, and then it has declined again.

Again, this is a standard control plot found for a lot of fisheries that you guys will see. Fishing mortality as ratio of F at MSY here, spawning stock biomass as a ratio of its reference point here, the 1-1 line is here. This line here is basically half your spawning stock biomass at MSY or your reference points.

This is your spawning stock biomass target. Here is your threshold. This is your F target. What you can see from the point estimate and the 80 percent confidence intervals is we're not overfished, and overfishing is not occurring. There is not a nonzero probability that you're not however above F at MSY; or overfishing, but it's not 50 percent.

When you use a retrospective adjustment pattern, because even this particular model in this formulation has a retrospective pattern, you get very close to your F at MSY reference point, and your spawning stock biomass comes a little bit closer to one-half BMSY. I don't want to get into the weeds; but we do have a retrospective pattern associated with this particular assessment.

The Mohn's Rho for spawning stock biomass is not particularly high; but it is there. There is a little bit of a retrospective pattern. There is a little bit of overestimating SSB and underestimating F . However, because it's within the 80 percent confidence intervals, generally there is not a correction factor applied to this.

Everyone's favorite topic, and everything everyone keeps calling me about; projections. We ran two separate scenarios for the peer review for projections for this year. One uses a bridge year; or 2018 catch of 111,000 metric tons, which is the actual ABC, and 55,000 metric tons, which is what was caught in 2017.

Generally the Workgroup didn't really think that it was likely that this fishery was going to catch 111,000 metric tons. It hasn't caught that

amount for quite a while. Going into projections we took a look at 2019 through 2021. We use F and MSY proxy; basically we projected forward if you caught F at MSY over the time series. Then we used a median recruitment; because we don't have that sort of stock recruitment relationship like you would normally put in.

However, we took out 2016 and 2017; and that's because in general those have really, really high CBs associated with them. We decided not to put them into the projections. The Working group did sort of note that these projections will likely be optimistic; if recruitment doesn't really pan out to go back to the median.

When you do this you end up with sort of two sets of projections. The top one is at 111,000 metric tons. The bottom one is at 55. This is your catch on the first line here, under each year when you apply the F at MSY. For example, in 2018 you catch 111,000 metric tons; you have a 95 percent chance of overfishing, you have a 96 percent chance of being overfished. In the following year when you apply the F at MSY value, you have a catch of 13,000 metric tons, 13.7 thousand, but you still have a high probability of being overfished and of course because you're fishing at F at MSY, overfishing is not occurring. Looking at the 55,000 metric ton, which I think is probably going to be a little bit more realistic, as well as given this fisheries performance, as well as pending actions by the Council.

At 55,000 metric tons for 2018, you'll have roughly a 70 percent chance of overfishing, and there is a 76 percent chance that you will be overfished. By 2019, when you apply the F at MSY, you get a catch of 28,900 metric tons; you have a 92 percent chance of being overfished, below one-half of BMSY.

Applying that sort of F at MSY there is still a greater than 50 percent chance that you will be overfished by 2021. That is the good news. I'm

just kidding. Wow, it's a tough room tonight. For some final sort of thoughts and Pat can stop me; because he's seen this slide before. To sort of highlight, the good thing is that you're not overfished and your overfishing is not occurring currently.

There is a limited retrospective pattern associated with this model as it's currently formulated. The model has got pretty decent diagnostics; it has good fits, there are not a lot of residual patterns. The MSY to my mind is actually more representative of the long term catch associated with this stock than previous models; it's 112,000 metric tons as opposed to 77.

You have older age at full recruitment to this fishery; which means that herring are allowed to spawn at least a couple of more times before they're fully exposed to the fishing mortality for this stock. Your F at MSY has gotten higher; and your biomass at MSY has gotten lower, so just think productivity, right.

The not so good thing about the sort of update of the assessment, or this assessment benchmark is that the recruitment has obviously been off in the last few years. It's not only just showing up as a modeling artifact, it is showing up in your catch, it's coming in your fishery dependent indices and your fishery independent indices.

This sort of lower recruitment has led to an erosion of the spawning stock biomass over the last few years; and will more than likely lead to probably being overfished in a very short amount of time. The lack of a strong stock recruitment relationship means that you're going to be relying on proxies for your estimates and for management purposes.

There is a lot of stuff that is still uncertain within this particular model; so the CVs on the recruitment in the last couple of years are greater than 1, which is pretty darn high. There is a lot of uncertainty about whether or not this retrospective pattern will come back. As we

talked about, there has been a series of you do an assessment, you have a retrospective pattern, you fix it, and then you do an update and it's back.

That's the reason why Jon put up the DeLorean up there for the Back to the Future thing, simply because we've been through this treadmill before. There is some uncertainty as to whether or not, when we go to update this model in three years, whether or not the retrospective pattern will be back. None of know; because none of us have a crystal ball. The other thing is that this use of F at MSY proxies can increase the uncertainty associated when doing things like setting OYs or in management, frankly, because we're not using F at MSY or MSY-based reference points but rather proxies.

PEER REVIEW REPORT

DR. CIERI: The peer review was conducted in June. Pat Sullivan, who is also on the SSC, was the Chair; and there were the different people included, Kathy Dichmont, Jeff Tingley, and Coby Needle. They were a good group and they gave a lot of really good suggestions. Their report is currently not out yet; as I'm sure you guys have already heard about, so I really can't speak to it.

In general they seemed fairly receptive. They gave some really good comments; and I thought that they helped and improved the model immensely. But I don't expect for them to either reject or to completely change the model from what we have in the report; but I don't know that for sure.

This is our summary. You guys have probably seen this table before. It gives one of the interesting things is it allows you to take a look at your point estimate of F at MSY; and take a look at how well we've done in the past about staying on top or under that F at MSY target in the past retrospectively.

You can also see the change in recruitment in a table form. Note that 392, is what we have in 2017. That is slightly up from 2016 of 175. But it wasn't that long ago where it was closer to 2 or even 10,000. There has been a fairly large drop in recruitment. I know everyone is always interested in the assessment and the assessment results.

A lot of people don't actually read the appendices. I read the appendices; but you know. There are a lot of appendices associated with this model. If you want more information, there is a lot of information on how we do aging. That SAM state space model that is used in ICES a lot; there is a run through with Atlantic herring.

There is also consideration of what do you do when you have different models that are giving you slightly similar results; but are off by just a little bit. That is a thing on model averaging; which I'm sure you guys have talked about a little bit in the sort of risk and uncertainty framework. There is also the two-area stock synthesis model that was done; which is also very interesting. I recommend that as a read, as well as a study free program and using predation pressure as an actual index in a model like this.

One of the cool things that we've noticed, when we went through and we did this model is we actually have documented occurrences of spring spawning in the Gulf of Maine; which is something that because the fishery hasn't been taking place, we haven't actually seen. But if you go out there in late May and in June, there are herring that are in spawning condition.

I thought that was actually kind of cool; because we haven't seen that in the Gulf of Maine in quite a while. Here are the Herring Working Group members; they include myself, Jon, Chris Legault, Deirdre, Sarah, Ashleen, and Gary Shepherd, who was Chair, and with that I think that is the last one. That's it; I'll take your questions.

CONSIDER ACCEPTANCE OF BENCHMARK STOCK ASSESSMENT AND PEER REVIEW REPORT FOR MANAGEMENT USE

CHAIRMAN KELIHER: Are there any questions for Matt? Ritchie White.

MR. WHITE: Would the layman's take away from this be that we're going to have to drastically cut quotas for a minimum of three years; I guess four years, and if we do not return to more normal recruitment that this is going to be a fairly long term problem.

DR. CIERI: Yes, if your levels of recruitment don't increase and if they don't go back to the median then the stock will be in a low state. You can't take fish that aren't there.

CHAIRMAN KELIHER: Dennis.

MR. DENNIS ABBOTT: Could we go to the summary sheet that was one of your last slides? The answer to my question might have been 20 slides back. Why are we getting such poor recruitment from a sizeable spawning stock biomass that I see in the third from the bottom line? What is the relationship? Is it traceable to fishing pressure? Is it traceable to environmental issues? I mean what do you feel is the driver in the sudden drop; not sudden but the continuing drop in recruitment, if that's a good question?

DR. CIERI: Yes, so the answer to your question is complex, right. I mean you've got spawning stock biomass for example, at this level, which is capable of producing near next to no recruitment or a whole lot of recruitment like you've never seen before, literally. There is no easy answer. We don't really know if there is an environmental driver, if it's simply a match or a mismatch associated with whether or not larvae are in the water column at the right time.

You know it tends to be sort of hit or miss. It has been four years in a row. I get it; for a lot of people that's concerning, and I understand. I think it is. But true to form, if you flipped a coin a hundred times there is a good chance that

you could come up with heads four times in a row, right? Some of this is random chance.

I don't think we haven't really explored the idea of an environmental covariates associated with recruitment; but it's the last four years. You'll notice that even in the last few years, we've still had pretty good recruitment. I mean this recruitment event back here in 2009 that is the third highest recruitment we've ever had in the time series. This is probably; I think when I calculated it was the sixth highest. It is hard to gauge whether or not some environmental drivers are at play here. Does that hopefully answer your question a little?

CHAIRMAN KELIHER: David Pierce.

DR. DAVID PIERCE: A lot of work went into this. You of course having a major role, so thanks to you and all of your colleagues for putting in this incredible amount of effort, appendices and otherwise. I mean this was no small chore; it was huge. A couple of questions, how old is an Age 4 sea herring? I'm sorry, how large is it; the length of an Age 4. That was a trick question.

DR. CIERI: It's usually about 23.

DR. PIERCE: About 23 centimeters.

DR. CIERI: Correct; actually a little bit larger than 23.

DR. PIERCE: Okay, I guess I'm trying to fathom why, or try to understand why Age 4 fish are not yet fully selected for the fishery; why it's gone from 4 to 7. These are purse seiners, the midwater trawlers, they don't have large mesh, and they're relatively small mesh. I mean when the fish are let's say 9 inches total length thereabouts, which is kind of around Age 3 or Age 4. They are caught by the industry; they're caught by the fishery. If they are there they are caught; so why has it shifted from 4 to 7, which is a very important conclusion that's been drawn?

DR. CIERI: This fishery, Age 4s was never fully selected. They were actually fully selected usually by Age 5s was when they were fully selected. Selectivity isn't just about gear. Selectivity is also exposure to fishing pressure in the fact that they may be in a different location than where the fishing operations are taking place; or they may be deeper, or they simply may not be in the same area that all the fish that are fully exposed to the fishery are.

There are a lot of explanations. You'll see it with menhaden as well; as we talk about that. Being able to be physically captured by the fishery is just one part of selectivity. There is also whether or not they're exposed to the fishery; being in the same place, the same time, and at the right depth.

DR. PIERCE: For whatever reason, Age 4 and Age 5 and Age 6 fish are no longer as available to the fishery as they used to be; as a part of this selectivity question. It's perplexing. Where are they? Are they all inshore so that they're not being captured by the fisheries that tend to be a little bit more offshore; although the purse seine fishery is fairly close to shore, isn't it?

I don't get that but nevertheless that is the conclusion that has been drawn. My other question is looking at the spawning stock, first a comment. Looking at the figure that shows spawning stock biomass going back over time, and reflecting on when I was involved in sea herring fishery management back in the 1970s, we had concluded that the sea herring resource had collapsed.

That led to all sorts of very low quotas for a long period of time; and it led to the decimation of the Massachusetts sea herring fishery, it just ended for all practical purposes. I see now that's we're at about that same SSB, so I'm going to conclude that we pretty much are collapsed. That may be the inappropriate word to use; but that's what was used back then.

It looks like we have a collapsed sea herring resource; based upon the SSB, and of course the future recruitment that we expect to get. The question is 2015, 2016, 2017; Age 1 recruitment was extremely low. How does one assess in a timely way; real time, the abundance of those young fish? What sampling gear, what survey was used to come up with those very low numbers of recruiting year classes Age 1?

There is no longer a fixed gear fishery like it used to be. If I recall correctly, the fixed gear fishery stop seine and weirs, they were extremely important in judging the strengths of incoming year classes, because they caught those small fish. What do we now use to get this confident conclusion that well, we've gone to hell in a hand basket, 2015, '16, and '17 Age 1 fish are pretty much not there?

DR. CIERI: Can you go to a slide that shows the SSB over time first? Yes, you're right. We are above the bottom of that curve for sure. We're not quite as a bad spot as we were back in the late 1970s. Your second question dealt with, I'm sorry?

DR. PIERCE: How did you come up with reliable estimates of Age 1 strength?

DR. CIERI: Right. You do actually have some fixed gear catches associated with this fishery. The New Brunswick weir fishery is still in operation; and so that does provide us some pretty good reliable information on year class strength, as well as the NMFS Bottom Trawl Survey does actually catch decent incoming year classes.

But as we've suggested that recruitment vector that we've seen has a fairly high CV in 2016, and even in 2015. You know those CVs are monstrous; in many cases a greater than 50 percent. I think we're reasonably certain that the year classes aren't stellar; but the actual amount themselves is highly variable. That is one of the most uncertain portions of this

model; is that incoming recruitment. Are you good?

CHAIRMAN KELIHER: Ray Kane.

MR. RAYMOND W. KANE: Thank you Matt for your presentation. Can we go back to the recruitment slide, please? Yes that one. In the last specs package in '15, looking at this recruitment slide you had an abundance in '09; it dropped off in '10, '11. It looks like it went back up in '12; and then it nose-dived '13, '14, '15, '16, and '17. How as management bodies did we come up with the specs package that we did for '16, '17, and '18; looking at this recruitment slide? Can you give me an answer?

DR. CIERI: That's how. When you guys set your specifications package in 2015, you were working off the blue line; as opposed to the red line. Now, you adjusted and we adjusted for that down to that black diamond, right. But adjusting things in the terminal year doesn't really quite capture all that a retrospective badness does; when it comes to management decisions. You can see that it drops your recruitment, right?

It also drops your SSB a few years backwards from where you do the terminal adjustment; so it's not just the terminal estimate. It's not just the important part. Your recent recruitment, your recent spawning stock biomass is all lower. You set stuff based on the blue line. The red is this year; and even that has a small, you know when we went through and we did this and we did a retrospective peel, even that has a retrospective pattern. Even that red line is an overestimate.

CHAIRMAN KELIHER: Are there any additional questions for Matt? Eric Reid.

MR. ERIC REID: Now you're using a new tool; which is your acoustic survey. Can you talk about that a little bit more? What input did that have? Was it different than your other sources of data? Mostly, how was it

conducted? Are we just going on a boat ride and keeping the sounder on? I mean that's what it looks like to me. If you want to put that graph up that would be fine.

DR. CIERI: Okay, so this is the passive echo sounder that's on the trawl survey. They take these; they go out and they do their trawl survey stations. But they move from place to place. As they move from place to place, we're passively grabbing acoustic signal. It covers a fairly large swath of area; and it's taken over time.

For this particular model, how that was done, there is a whole working paper in the Appendix that talks just about that and how that was derived. I'm not the foremost expert on that. That was Mike Jech that did the bulk of the work. However, in the document there is a figure that's called – and I don't think I have it with me – that's called, leave one out. In that figure we sequentially drop every single one of our surveys for each sequential run. We do that to see what the influences are of those particular surveys.

Every time we dropped any of these surveys, the estimate basically stayed within the confidence intervals associated with the terminal years within the timeframe. None of these surveys individually carry a lot of weight within the model. They do carry a lot of weight together; and so it doesn't really give you, dropping that acoustic survey doesn't really give you that much of a change. As I remember it, and somebody could correct me if I'm wrong.

As I remember dropping the acoustic survey slightly decreased the spawning stock biomass; and slightly increased the fishing mortality. But I would have to go back and actually pull up that figure to be certain. But that figure is in the document; and I forget which one it is, but it's basically called Drop One.

CHAIRMAN KELIHER: All set, Eric? As my staff likes to tell me, it's not complicated it's just complex. Do you want to follow up?

MR. REID: Yes. It is one of the two or all three, I'm not sure. Mr. Jech and his staff of zero, the way I understand it he is the staff in the acoustic business. He would much rather prefer multibeam sonar; so you can see what you're actually looking at. I don't know if they actually catch the fish that they ride over; to make sure they know what they're looking at.

DR. CIERI: Oh yes they do actually; that is part of it. They always do an acoustic sounding; and it's not a dedicated survey by any stretch of the imagination. But they're out and it's in the normal process of the NMFS Bottom Trawl sampling. That's exactly it; they have those estimates.

CHAIRMAN KELIHER: Doug.

MR. DOUGLAS E. GROUT: Matt, you mentioned in your last slide that you discovered some examples of spring spawning. Is this at a level that we should start considering spawning closures; or was it just a couple of examples that you had never seen before?

DR. CIERI: Actually there is a whole working paper on this in the Appendix Section of the Assessment. I think the estimate is at about 2 percent. Including or excluding doesn't really make a difference within this particular modeling framework. But there is good evidence of spawning activity happening in May; which is completely surprising.

MR. GROUT: Location where they were gotten? Is it Georges Bank?

DR. CIERI: Inshore. It's mostly inshore.

CHAIRMAN KELIHER: Before I take any additional questions from the Section, I'm going to recognize Jon Hare from Northeast Science Center.

MR. JONATHAN A. HARE: I just wanted to talk a little bit about the Acoustic Survey; since the

question came up from Mr. Reid. The Northeast Fisheries Science Center used to have a dedicated Herring Acoustic Survey on the NOAA ship, Delaware. When the Delaware was retired and not replaced in the region; that dedicated acoustic survey ended.

Dr. Jech, who is an acoustic expert, then used his expertise from that dedicated survey to go in and analyze the acoustic data coming from the Bigelow; and came up with the index that was used in the assessment. He is a staff of one; but he has a lot of expertise, and has worked very hard over the past year to develop the data for use in this assessment, working closely with Jon Deroba; the assessment lead. I just wanted to provide that background; thank you.

CHAIRMAN KELIHER: Thank you Jon, I appreciate that. Does anybody have any questions or clarifications from Jon on that? Seeing none; back to the Section, any additional questions for Matt? Seeing none; as was stated, we have a peer review that has not been finalized. Matt indicated that the peer review group did have favorable comments.

I'm not sure if we're seeing any problems associated with its release; but that has yet to be known. We do have a stock assessment obviously that was just reviewed. One way to move forward on this would be to accept the stock assessment; pending the approval of the peer review so that could be used from a management perspective. Toni.

MS. TONI KERNS: I think that what we would do, unless you all want to do differently. We can give the peer review results at the October meeting; and then you could accept the assessment for management use then, or you can do a conditional approval. But that would mean you would approve it prior to hearing the results of the peer review; which I'm not sure that would be a more unusual thing.

MR. GROUT: I guess because we're accepting the peer review for use in management. The question is between now and the October meeting, is there a potential that the Herring Section could be brought together to consider some management options such as specifications?

CHAIRMAN KELIHER: Toni.

MS. KERNS: That will be a discussion that we take up next, Doug. There are several ways that we can move forward. Megan will have some information for the Section to consider. We could not do anything on the assessment for now. We could come back to a motion to approve it if you want; in some sort of conditional way based on the conversation that occurs after this, or we can just wait until October, or approve it conditionally.

CHAIRMAN KELIHER: Ritchie White.

MR. WHITE: How does making this decision affect the next agenda item?

CHAIRMAN KELIHER: Toni.

MS. KERNS: The next agenda item. Without spoiling, you know Megan is going to let you all know that there is potentially a change in how we're going to move forward in the specification process; in particular the timeline, and what the New England Council is considering, and what NOAA Fisheries will be considering.

There hasn't been a final decision; so this is still a possibility of how the timeline will change, but I think it's somewhat likely. But I'll let P.K. speak to that. There will be some questions that the Section will have to consider today. I think it is fine for you all to use this information as you consider those changes in the timeframe; and recommendations that you want to make to NOAA Fisheries, and to the New England Fishery Management Council.

The Section will have to decide whether or not they want to conditionally change 2018 specifications; or if you want to get back together and do a phone call to make some changes to specifications, because we don't have all of the information in front of us today. I think maybe the easiest thing to do is let Megan give some information, Pat, and then the Section can decide what to do with the assessment, if you're willing to do that.

CHAIRMAN KELIHER: Yes, I don't disagree.

**DISCUSS RECENT NEFMC RECOMMENDATION
TO NOAA FISHERIES ON THE 2018
SUB-ANNUAL CATCH LIMITS**

CHAIRMAN KELIHER: I think unless there is some objection from the Section; why don't we move into Agenda Item Number six. We have information from Matt; as it relates to the Peer Review now that will help potentially inform us in those discussions. Then we can make a determination if we need to make a motion in regards to the Peer Review from a conditional perspective, addressing questions and concerns, Ritchie that you brought up, as far as further management actions.

With that if there are no objections; I'll turn it over to Megan then for Item Number 6. Keep in mind that we have a lunch break on the agenda here. One good thing here is we can get through this presentation; break for lunch, be thinking about this as we have a steak sandwich, or a bowl of fruit, whatever your heart desires, and then come back to the table with clear minds on a path forward. Megan.

**RECONSIDER THE ASMFC
2018 SUB-ANNUAL CATCH LIMITS**

MS. MEGAN WARE: We're first going to talk about the 2018 sub-ACLs. Before we get started, I just want to note as many of you know that there are a lot of moving parts for herring right now. We have the assessment we just heard. We have the Council's Amendment 8. We have a potential in-season adjustment

for 2018; and then we also have 2019 through 2021 Specs. A complicating factor here is that while all of these actions are interrelated, they're happening on slightly divergent timeframes. As a result, some of the things that we'll be discussing today are contingent on other actions happening. I'm going to do my best to kind of tee up those issues; and show how they're related. But I do want to note that the Section will be talking about some things that are one or two steps down the road today.

In June the Council met and discussed preliminary results of the 2018 herring assessment; which Matt just noted indicates reduced biomass and poor recruitment over the last five years. Based on those results, it is expected that there will be severe cuts in catch, which will be implemented in 2019 through 2021.

Specifically, two of the projections that the Council focused on were two that Matt showed. The first one is the full 2018 ABC being harvested; which is the 111,000 metric tons. That would potentially result in a 2019 coastwide catch of 13,700 metric tons. Then the second one was half of that 2018 ABC; and that would result in a 2019 coastwide catch of potentially 28,900 metric tons.

Over all what these projections are suggesting is that an in-season adjustment in 2018 could reduce the severity of cuts in 2019. In light of this information, the Council passed a motion, which is on the screen here regarding the 2018 herring fishery. It is recommending that the Regional Administrator allow for in-season adjustments for the 2018 fishery; such that the 2018 fishery would be capped at 2017 catch levels, for Management Areas 1A, 1B, and 3.

Then Area 2, the 2018 would be capped at 8,200 metric tons. The reason that Area 2 is slightly different is that they had already surpassed their 2017 catch levels; so that 8,200 metric tons is intended to provide some quota for the early winter small-mesh-bottom-trawl

fishery. The table is a numeric version of that motion.

Our first column is the current 2018 sub-ACL; so for Area 1A that is just over 32,000 metric tons. The next column is what's being recommended by the Council, so again for Area 1A that is the 28,682 metric tons. The next column is the difference between that and then the final column is what is that percent of the original sub-ACL. Again, for Area 1A the recommended amount is 89 percent of our current sub-ACL.

Why is the Section talking about this? If NOAA Fisheries makes an in-season adjustment, ASMFC will have different herring sub-ACLs in place for 2018. This is because the Section passed a motion in November of 2015; approving the 2016 to 2018 herring specification package. If the Section would like to align the state and federal sub-ACLs for 2018, we will need a motion to reconsider, and that will require a two-thirds majority vote.

As I kind of preface this presentation with timing is a complicating factor here, it is important to note that NOAA Fisheries has not released action on the 2018 in-season adjustment. Unfortunately I don't have those final sub-ACL values to show to you today. Given some challenges with timing; and the fact that we don't have those 2018 values, from a staff perspective there are kind of three actions for the Section to consider today. The first would be no action; so that means the Section would maintain the current or the existing 2018 sub-ACLs. This could mean that the state and federal sub-ACLs would be different; if that in-season adjustment is implemented. The second option is to make a motion to reconsider the 2018 sub-ACLs, and make it conditional on action by NOAA Fisheries. This will insure that the state and federal sub-ACLs align; but again, we don't know those final numbers.

Then the third option is to wait for action by NOAA Fisheries; and then address a sub-ACL change via a conference call. Under this option

the Section would know what those adjustments would be; but it means that we may have to move quite quickly via a conference call after NOAA Fisheries action. I'm going to leave these three potential options up here on the slide for discussion; and we will pass it off to the Board Chair when he comes back.

CHAIRMAN KELIHER: Sorry about that sidetracked. As you can see, based on the last slide there are three potential actions for the Section to consider. Before I open it up for additional comments from the Section on a path forward, I think it would be not to put you on the spot, Mike, but maybe I could bring you up to the microphone. Mike Pentony and staff and I, along with Toni, talked yesterday. Obviously there is some difficulty in timing here. I think it would be good to get your thoughts on this, Mike, and maybe we can prod you a little bit for some information.

MR. MICHAEL PENTONY: Megan did a really good job of laying out the Council discussion in June. I might ask actually, would it be helpful to this brief discussion if you could pull up one of the slides that were in Matt's presentation that showed the projected catch and fishing mortality rates for 2018 and '19. I think it was a table that showed at the current levels and at the potentially adjusted levels.

As Megan relayed, the Council had a discussion similar to this Section in June; based on the preliminary information coming out of the assessment, and obviously was very concerned with what they were hearing. Recognizing that one possible way to mitigate significant impacts to the fishery next year – thank you that is exactly what I was looking for – to mitigate potential impacts to the fishery next year and the year after, would be to reduce catch in 2018 through an in-season action.

As that table shows you, which was presented to the Council or at least the information behind that table was available for the Council. As Matt and Megan both described, at the

111,000 ton ABC we currently have, the projection is that next year's ABC would be on the order of 13,700 tons. But if the catch was reduced for 2018 to 55,000 tons, catch could be something on the order of 28,900 tons.

The Council had the discussion about requesting that the Agency, under our authority in the regulations, take an in-season action to adjust the 2018 specifications to constrain catch to 2017 levels. Megan showed the table; which the Council was using based on preliminary information about 2017 catch. That was updated and the information that Megan showed you reflects the final catch for 2017.

Council also had a lengthy discussion about Area 2; and the best way to address that since it would have already exceeded its 2017 catch, when you factor in the adjustments and the in-season actions. The Council passed a motion 16-0-1 requesting that the Agency take this in-season action. I just want to highlight one aspect of that motion. I'm going to reread it; even though Megan showed it to you. Upon approval of the 2018 Stock Assessment Peer Review, the RA under existing authority allowing in-season adjustments, take action to cap the 2018 harvest at 2017 catch levels, and set the Area 2 sub-ACL at 8,200 metric tons.

The first part of that is important. As you've heard, the stock assessment has not yet been approved; so we are eagerly awaiting the final results of that. Meanwhile, although we are seriously considering the Council's motion, the action is still under consideration, pending final review and release of that stock assessment.

We have not made any final decisions yet on the Council's request. But I do want to highlight two things. The in-season adjustment regulation that the Council is referring to says that the specifications may be adjusted by NMFS to achieve conservation and management objectives; after consulting with the Council, during the fishing year.

Any adjustments must be consistent with the FMP objectives and provisions. The reason I stressed that last point; any adjustment must be consistent with the FMP objectives is I want to point to the bottom table there. Under catch at 55,000 tons, you can see that the probability of overfishing is 0.69.

Generally, the golden rule is that we not set any catch levels that would have more than a 50 percent probability of resulting in overfishing. The challenge for us as we look at the Council's recommendation and weigh what to do; is we feel that we cannot set specifications or make an adjustment that would result in higher than a 50 percent probability of overfishing.

Now, what you don't have in front of you is, what is that number? Toni may have some information that she can share with you. We have been looking at some projections. You know if you did a linear run from 111,000 at a 95 percent probability of overfishing to the 55,000 ton with a 69 percent probability of overfishing, it might look very grim.

It is actually not a linear run; so it's actually not quite as bad. But what we are doing is we are looking at the Council's recommendation in light of this provision to ensure that we are preventing overfishing; looking to set an overall catch level consistent with that. Taking into account the Council's recommendation, for example that we set the Area 2 sub-ACL at 8,200 metric tons, and that we try to preserve as much as possible the catch levels in the other three areas as close to as possible their 2017 actual catch.

Then we're also looking at what that might mean for 2019. I think we'll have that discussion probably after lunch. But I realize you're probably not getting as much information as you would like from me; in terms of specifics. But hopefully, if Toni can share you with the information that she has, and I'll be happy to answer any questions.

CHAIRMAN KELIHER: Reading between the lines, and the fact that it's not a linear run, would leave me to believe that it's not as low as I was thinking it might be. But Toni, do you want to comment on that?

MS. KERNS: Recognizing that NOAA is still in their process; but that the Section probably is not as comfortable making a change to an ACL if you don't have all the information in front of you. I have some information on projections that achieve a 50 percent probability in 2018; and I can give it to the group in sort of about numbers in 2018 that that would leave a catch that is not quite, but close to 50,000 metric tons, and in 2019 somewhere in the range of 30 to 31 metric tons, thousand metric tons, sorry.

But that doesn't tell you how that catch would be distributed. For today, as Megan said before, we can either consider making a change to the 2018 sub-ACLs conditionally on what comes from the rule that NOAA is currently working on; or the Section could have a conference call following the rule coming out.

CHAIRMAN KELIHER: Before I go to Matt, Peter Kendall.

MR. PETER KENDALL: Toni, those numbers, is that with the updated 2017 landing; because we didn't have those as of the PDT last week?

MS. KERNS: I believe so. But I would have to go back to confirm that.

DR. CIERI: Just something that Deirdre and Jason reminded me that these are OFLs that we're talking about here not ABCs; and so there is that thing to keep in mind as well. Those will be reduced by Canadian catch; as well as the SSC.

CHAIRMAN KELIHER: You always bring a ray of sunshine into the conversation. All right, back to the Section. Ritchie White.

MR. WHITE: Trying to think about the process here and our role. Do I understand correctly that today we could change the quotas effective immediately? Am I correct in that or not?

MS. KERNS: It depends on what you would want to do. I think that the best thing to do is if you approve something today, it should be conditional on what comes out of NOAA Fisheries; so that would not be effective immediately, it would be effective after their rule came forward.

MR. WHITE: Right. I'm trying to work through this process. If we have that ability, so we can be more nimble and do things quicker. Can we then be an asset to the Council and the Service to put something in place that at this point it looks like they're in favor of, and then we could undo that if necessary going forward.

CHAIRMAN KELIHER: My understanding is it was for our role today, if we had all of the information, was to give advice on Area 1 and the breakdown of Area 1 and the sub-ACLs. I'm reading between the lines a little bit on what Mike said; as far as the quota by areas that the rule that will be coming out in regards to that you will be addressing those for '18 and '19.

Not for '19, okay. Just for '18, okay. On our plate today would be in the memo that Megan sent around on July 20, our role here today could be to deal with RSA. We could comment on RSA issues. We could comment on fixed-gear set aside for west of Cutler. There are probably two or three others that I'm not thinking of right off the bat. What's that? Oh that's for '19 then too. Okay, Toni, get me back on track.

MS. KERNS: I think for '18 what you're looking at is just making a possible change to the sub-ACL itself, just the numbers. Everything else would hold. For '19, separate discussion later on, we can make some recommendations to NOAA Fisheries, as well as the New England Fishery Management Council on possible

changes to a couple of factors within the document, which Megan can go through later.

Today before the Section it's just the question of do you want to do a conditional change that would be effective immediately when NOAA Fisheries comes out with their rule for the 2018 sub-ACLs, or do you want to wait, have a conference call after their rule comes out, and consider that change? Because we've already set sub-ACLs for 2018, it does require a two-thirds majority vote to make that change.

CHAIRMAN KELIHER: I'm going to go to David, and then back to Peter Kendall.

DR. PIERCE: Yes first of all, I don't think it requires a two-thirds majority vote; because this was announced beforehand. When it's announced beforehand so the public knows it is coming, it can be a majority vote. That is the way it usually works. If it's advertised it's a majority; if it's not advertised, if it comes up at a meeting then it is two-thirds majority.

Anyways, apart from that we'll be discussing what to do after lunch. Frankly, because the vast majority of the sea herring fishermen have federal permits, the heavy hitters, those who really have an impact on what's being caught. I don't really think that what we do as a group of states is going to be of much consequence; in terms of changing the numbers.

Because they're going to be affected by whatever the federal government does, 50,000 metric tons or so reduced to whatever number. Yes, it will be good to get on the same page; but in terms of the need to scramble to make a change, I don't see it since they're federal permit holders.

CHAIRMAN KELIHER: Is there any other questions or comments from the Section? Seeing none; I think why don't we break for lunch, think about a path forward, and return back at one o'clock, and start the conversation

again. Does that sound good? We're adjourned until one o'clock.

(Whereupon a recess was taken.)

PROVIDE RECOMMENDATIONS TO NEFMC ON 2019-2021 FISHERY SPECIFICATIONS

Due to technical issues the beginning of this section was not recorded; Megan Ware's presentation is in progress:

MS. WARE: As an example, Area 1A allocates 100 percent of the sub-ACL to the months of June through December. We have border transfers; so that's the amount of herring that can be taken in U.S. waters and transshipped to Canada. We have research set asides, which can be up to 3 percent of a sub-ACL; a fixed-gear set aside that is up to 500 metric tons of the Area 1A set aside for fixed gear fisheries west of Cutler. Then we have our river herring and shad catch caps; so those are limiting the amount of river herring and shad that are caught in specific regions by specific gear types. Kind of a reminder of our current specification package, this was what was put in place for 2016 through 2018.

Our ABC again is that 111,000 metric tons; and then after accounting for management uncertainty, the ACL was 104,800 metric tons. For the division of the sub-ACLs, the 2016 to 2018 Spec package, maintained the same division of the ACL between the management areas, as was used in 2013 to 2015.

This was because the ABC was not substantially different; and there was no biological need to consider modifying the distribution based on the 2015 stock assessment. The border transfer, the RSA, and the fixed-gear set aside were also all maintained at their values so that it was 4,000 metric tons, 3 percent, and the 295 metric tons.

For the river herring and shad catch caps, they did use a revised method; so specifically that 2016 to 2018 caps used two additional years of

data, and they were based on a weighted mean. In the briefing memo that was sent out as a part of briefing materials, there was a timeline that looked at the specification package for 2019 through 2021.

In that timeframe it showed that the SSC would be meeting in October; and then the Council would be taking final action on that Spec package in December. This would mean that the Final Rule would be implemented sometime in the summer of 2019. Obviously this timeline poses a few challenges; notably that the Spec package is going to be or would be implemented after January 1, 2019. This would necessitate the need for an interim rule for the start of 2019.

To address some of these challenges there is a potential for a new timeline. Under this new timeline there would be 2019 rule making and then the Spec package which would focus on 2020 through 2021. The 2019 catch values would be implemented via a rule making. It would not be subject to the Amendment 8 Control Rule.

Then 2020 through 2021 would go through the specification package. The potential timeline is up on the screen there; so that October SSC meeting would just focus on the 2019 ABC. That 2019 rule would be published in January; and then after that time the Council would focus on the 2020 to 2021 specification package, and all of those elements.

Obviously there are still some questions about the timing and the implementation of herring specs moving forward. However, given the Section is not scheduled to meet again until the end of October, and there will probably be several decisions that are made between now and then, we wanted to provide an opportunity for the Section to discuss the specification package, and provide recommendations to the Council as they move forward.

The recommendations at this point would be for potential analysis or alternatives that the Section would like to see considered or developed during that Spec process; as opposed to preferred alternatives. The briefing memo did include some questions; which I've put up on a slide here. These are hopefully intended to prompt discussion by the Section this afternoon. Some of those include; does the Section recommend the Council set aside quota for research, and if yes does the Section recommend that RSA be maintained at 3 percent, or should a range of options be considered? I think kind of underlying that question is does the expected reduction in the 2019 or 2019 through 2021 ACL impact the range of RSAs that should be considered. After that we have; does the Section recommend the Area 1A quota be set aside for fixed gear?

Similarly, if yes do we recommend it be maintained at those 295 metric tons or should a range of options be considered? Does the Section recommend the Council look at various alternatives on how to distribute the ACL between management areas; and then does the Section recommend the Council consider any other alternatives to the seasonal split of 1A quota, beside 100 percent to June through December? Again, these are just intended to prompt discussion; and we'll leave these up while you guys talk about these.

CHAIRMAN KELIHER: Great. At this time, since as I mentioned earlier I don't have any of my other state Commissioners here. At this time I'm going to have Bob take over the role as Chair to get us through this item; so I can possibly advocate on a couple of these areas. Bob.

CHAIRMAN ROBERT E. BEAL: Are there any questions for Megan on Megan's questions? Toni, Toni first and then I'll go to Ritchie.

MS. KERNS: Just to help us get along with the time and keep us focused. With the timeframe as Megan said, what the Section might want to

consider today is making recommendations to the Council for 2019 only. Not necessarily the numbers or pounds of quota, but just in these questions recommendations on RSA, fixed gear set aside, and the rationale for that recommendation.

We could ask Mike if there were any of these questions that they would not be considered changing in an in-season adjustment. I'm not sure that changing the percentage for each of the areas would be something that they could do in an in-season adjustment. But we will have time to make recommendations for 2020 and 2021 later in the process; either at our October meeting, or even potentially February. I would have to look at the timeframe. It would only be 2019 that we need to focus on today.

CHAIRMAN BEAL: Ritchie.

MR. WHITE: Megan, do we know how much revenue the RSA generates?

MS. WARE: I don't know off the top of my head. I look to see if anyone else does. But I don't know.

MR. WHITE: Does Massachusetts? Okay then, my thinking is depending on the amount that it might make sense to not continue with an RSA; at least for next year, and if the funds are not substantial. I mean 3,000 tons; I can't imagine that that generates a ton of money that we could offset that with some of the excess money that was discussed this morning that we have available.

CHAIRMAN BEAL: Doug, did you have your hand up; or is that to answer Ritchie's question?

MR. GROUT: Yes, I would suggest to the Council that we consider a range of RSA options; you know from 0 to 3 percent. I also wanted to suggest that we consider a range of fixed-gear set aside; anywhere from 0 to what it is right now, and one could be a proportional reduction in the fixed-gear set aside.

The other thing I wanted to ask is either now or for 2019, or for '20 and '21. Should we make any recommendations on options for the border transfer? This year for the first time we recommend that a border transfer not take place when consulted by National Marine Fisheries Service. Is that another thing that we should put up there on a list for consideration for 2019; as well as into the future, '20 and '21?

CHAIRMAN BEAL: That's a good point, Doug. We'll put that sort of in a parking lot and get back to that border transfer issue. Other questions, yes, David Pierce.

DR. PIERCE: Not questions. I was going to follow up on what Doug just said. I do support having a range of options for the RSA; for a number of reasons. One being that if we do away with the RSA that has a rather significant impact on our ability to sample the catch dockside; and to do all the work that is so important for us to monitor what's happening with the fishery, spawning condition and all of that the move along strategy.

With a range of options that will likely result then in a better evaluation of the consequences of reducing the RSA; which some people might want, in light of the dramatic drop in the quotas that we're expecting to have. Everyone needs to know the consequence of that dropping it to 2 percent or 1 percent or 0 percent.

What does that mean for monitoring of this fishery; since the RSA is important for that reason? Then for the fixed gear west of Cutler. Sure, I think it makes sense to do what Doug suggested; just a range of options, because I have no opinion on that at this point in time. But still, it does beg for some evaluation; different numbers, consequences to the state of Maine and all of that.

CHAIRMAN BEAL: I've got Eric and then Ray and then Pat, and then I think we'll see where we are as far as consensus on some of these points;

and if we can wrap some of them up and then get to the stickier ones after that. Eric.

MR. REID: I'm supportive of the RSA in the fishery. I can't answer Ritchie's question. But I know that the industry was buying RSA; even though they really didn't need it at the time. That was to help finance dockside monitoring. That was an important component. That was the industry demonstrating that they supported dockside monitoring; not only in theory, but financially.

But I think we need an RSA; and it goes back to my conversation this morning about the new tool in the tool box; the acoustical survey. Industry platforms are far more capable of doing effective acoustic surveys; because of the electronics they have onboard. I could see that being a reasonably ripe fruit to pick out of RSA. But if in fact acoustic survey data is going to be considered; then I think we need to be able to involve the industry, because they're the ones that have the capabilities of really doing the job, not the vessels, not to short side the vessels that the government has.

CHAIRMAN BEAL: Ray.

MR. KANE: Yes, I'm in both Eric and David's camp on the RSA; with one caveat. They caught 3,000 metric ton of mackerel; and in order to afford our dockside sampling and keep it in place. I'm hearing sentiment from the table maybe reduce RSA to 2 percent or 1 percent. But I think industry should be charged or taxed on the mackerel that was landed. I believe those numbers came from '16 or '17 in the RSA, 3,000 metric ton of mackerel were landed. In order to keep this dockside sampling, moving along and get new funding for it, I think that should be addressed.

CHAIRMAN BEAL: Pat.

MR. KELIHER: I would be supportive for a range of options. We were originally thinking, as far as the fixed gear fishery west of Cutler to

maintain a level of status quo. But I know that may be a little bit of a lift considering the reductions that we're taking. Dealing with a range of options for RSA and fixed gear I think is appropriate.

I think Doug is right. I think we just submitted a letter on border transfers to zero. I think with the expected scarcity of bait issues that we're going to be having; I would advocate maintaining zero as a border transfer at this time. You know in the RSA piece, I think Ray brings up an interesting comment; as far as trying to find the ways to ensure that we're not getting mixed catches associated with the RSA fishery.

I'm not sure how to deal with that from a language perspective; but I take your point, Ray. But I would also point out that 3 percent of the reductions and quota, 3 percent of nothing isn't very much; so a range of options up to 3 percent may not get us to where we want to be. But I think David makes a good point.

We do get a lot of additional value from a sampling perspective. I would not be opposed to maintaining even some low level. Mr. Chairman if I may. Just a question for David; because I think am I mistaken, is your sampling program in some way related to, is it funded by some relationship to RSA?

CHAIRMAN BEAL: Dr. Pierce.

DR. PIERCE: Yes it is.

CHAIRMAN BEAL: Based on everyone that has commented so far; it sounds like the Section is comfortable with RSA set aside from providing a range or recommending a range to the Council from 0 to 3 percent, and for the fixed-gear set aside 0 to the current set aside level. Then based on what Doug said and what Pat said, they were the only ones that commented on the border transfer. But based on the letter that we recently sent, does anyone have any objection to maintaining or having consistency

in saying the Section does not support any border transfer; given the scarcity of bait? I see a lot of heads nodding. We'll go with those three points as a recommendation. That moves us down I think to the third bullet and question talking about various alternatives for distributing the ACL between management areas. Comments or thoughts on that or is that not needed? Toni.

MS. KERNS: I think this is one of the issues that it would be very difficult to make an in-season adjustment to. I would turn to NOAA if that is an incorrect response.

MR. PENTONY: Just for clarification. This would be if the New England Council recommends for 2019 that rather than going through the full spec setting process, of Council spec setting process that the Council requests the agency take an in-season adjustment action to effectively revise what would otherwise rollover from 2018.

Toni is correct. The more complicated that action becomes; the more difficult it is to justify and to implement as an in-season adjustment, which tends to be reserved for very straightforward modifications like we discussed earlier for 2018, where we would simply drop the overall ABC, and drop the sub-ACLs. Does that answer the question, Toni?

CHAIRMAN BEAL: Toni.

MS. KERNS: Yes, and I believe the same goes for the last bullet as well.

CHAIRMAN BEAL: Is everyone comfortable with that guidance and not taking or making a recommendation at this time on the last two bullets? Seeing everyone is comfortable; Peter Kendall had his hand up.

MR. KENDALL: Yes, and I was just going to follow along with what Mike said. I mean the Executive Committee, the Herring Committee and the Council have not even discussed maybe

splitting out 2019 yet. Once we go through that I would imagine, I can't predict, but with everything going on with Amendment 8, and having to take final action on that in September. Like Mike just said, trying to get this streamlined for 2019. I don't expect the Council to add on a lot to that interim action as well. The quicker they can get it done the better off we'll all be.

CHAIRMAN BEAL: Ray.

MR. KANE: Question, I was on that call on the transfer to Canadian vessels. Now we have Matt Cieri sitting at the table. What age are those fish that we're not allowing that permit on for the Canadian transfer for the four vessels? I mean what is the length of those fish and what is the age of those fish that go to the canneries?

DR. CIERI: They generally prefer smaller fish. But they do have the ability to steak, so I would probably guess, given my experience back when we had canneries in Maine. Those would probably be 3s or 4s on average.

MR. KANE: Three to four year olds. Thank you.

CHAIRMAN BEAL: Any other thoughts or recommendations that the Section wants to convey to the New England Council? Not seeing any. Mr. Chairman, do you want to take over the Chair, or do you want me to keep going?

CHAIRMAN KELIHER: Okay so moving right along then and being mindful of ending around two o'clock or shortly thereafter gives us about a half an hour to deal with a couple other issues.

OTHER BUSINESS

CHAIRMAN KELIHER: One, why don't we deal with the AP issues first, Megan; AP nomination and you handle that and then we'll go revisit the conversations regarding the Section to a Board. Megan.

ADVISORY PANEL NOMINATIONS

MS. WARE: Sure. Toni had e-mailed each of the states about kind of all of their AP members in general; and we got two nominations from Massachusetts to the Herring AP; Beth Casoni, and Gerry O'Neill. I will look to Massachusetts for a motion.

DR. PIERCE: Yes, I would move that we accept as members of the Advisory Panel. Well, there it is. Move to approve Beth Casoni and Gerry O'Neill to the Atlantic Herring Advisory Panel.

CHAIRMAN KELIHER: **Do we have a second? Eric Reid. Are there any questions or comments on the motion on the Board? Seeing none; any objections. Seeing none; the motion passes without objection.** Thank you very much. Moving along, and I'm going to put you on the spot a little bit, Bob.

CONSIDER RECOMMENDATION TO CHANGE THE HERRING SECTION TO A BOARD AND INVITE THE NEFMC TO HAVE ONE VOTING SEAT

CHAIRMAN KELIHER: Based on the conversations around moving the Section to a Board, a letter was drafted and sent to the Commission; and there is ultimately a meeting between Commission leadership and Council leadership about all management areas and management species boards. But in particular toward the Atlantic Herring Section and Bob if you could recap that meeting and then we'll.

EXECUTIVE DIRECTOR BEAL: A series of letters have gone back and forth between this Section, the Commission, and New England Council talking about voting seats and membership, and how the different bodies should relate and coordinate and communicate. One of the most recent letters from us to the Council offered a nonvoting seat on the Section; and also suggested at a meeting of the Council and Commission leadership to talk about the issue,

and how to communicate and collaborate would be a productive thing.

The Council said well, we would rather not take advantage of your offer and have a nonvoting seat at the Section; despite Peter being here. They also said, but the meeting sounds like a good idea let's go ahead and do that. Pat Keliher, Jim Gilmore and I met with the leadership; Tom Nies, Terry Stockwell and John Quinn from the New England Council. We talked for two or three hours about communication and collaboration.

There was an agreement I think by all six of us that more communication and better flow of information helps both bodies out. It's getting complicated given the specs; and this was before we even knew, I think about this quota issue that we're going to be faced with. We had just heard preliminarily there was some bad news coming our way. It was a good conversation; it was productive I think. We agreed that we should probably continue to meet, the six of us, and talk about shared issues. One of the direct outcomes of that was we agreed to bring the idea back to the Section of turning the Section into a management board. If this Section is changed to a management board it would provide the opportunity for the Commission to invite the Council to have a voting seat on the Board; and it would also allow the federal services to sit at the Board and vote, should they elect to participate.

There is a little bit of a nuance there the way that the charter works is if this becomes a management board it's up to NOAA Fisheries and U.S. Fish and Wildlife Service if they decide to participate or not. It's their decision. As far as the Council participating, it's up to this Section to invite New England Council to have a voting seat, and they can either accept or decline that invitation.

Pat, we talked about a lot of different things at that meeting. I don't know if you want to chime

in on any more. But really that's the one deliverable that came back to this Section. Again, we all agreed more communication will help out these issues of shared management of sea herring are tricky; and there is a lot of overlap between jurisdictions and sort of turf issues at times.

Having the voting membership back and forth seemed to be a way to help out with some of those turf issues; and ensure the flow of information back and forth, just so both bodies knew what the other ones are doing. Obviously there is a lot of membership that overlaps; in particular state directors and some others. It's up to the group; but one option would be changing this to a board would afford some flexibility as far as membership goes.

CHAIRMAN KELIHER: We are; I think the word David used on stock status was in a collapsed situation, comparing it back to the '70s. I think the thing that has definitely resonated with me, especially over the last week after the PDT met in Gloucester last week was the fact that we are definitely in need of more communication and collaboration amongst the bodies and with the Agency.

You know we are in a very difficult time; and will be for the next three or four years, potentially longer with Atlantic herring. I think now is the time to really step up and make sure that we're all kind of rowing in the same direction; instead of arguing about who should be doing what. The last conversation we had about this, I know one of the concerning factors was on the days out side. Days out would not be impacted. This would still be Maine, New Hampshire and Massachusetts dealing with the issues of days out.

The only thing that this does is change the title; and adds a couple new voting members to what would then be a board. Just to remind everybody here. This was on the agenda for the Policy Board. It was not originally on this agenda; because it was supposed to be a Policy

Board discussion. But because of the business that we had here today, I think it is very appropriate for this Section to make a recommendation to the Policy Board, with that David Pierce.

DR. PIERCE: I would move this Section recommend to the Policy Board that the Sea Herring Section be converted to a management board with a New England Fishery Management Council member having a vote on the Board.

CHAIRMAN KELIHER: I have a motion, do we have a second, Doug Grout on the second.

ERIC REID: I know you've got some thoughts on this. Yes, I make a motion to substitute. If you want to put it up that would be great.

CHAIRMAN KELIHER: Bob, I am going to have you take it.

CHAIRMAN BEAL: All right, I turned over the keys to the original chairman prematurely. I'll go ahead and take back over the Chairmanship. Let's make sure the first motion reflects what Dr. Pierce wanted it to be. Is that correct, David what's up there now?

DR. PIERCE: It's not correct, but it's fine. I didn't use the word offer, I just said with a New England Fishery Management Council member having a vote on the Board, so just say that's what it should be. I don't think the New England Council is going to refuse the offer. I would say with a New England that's fine. That's the way I worded it.

CHAIRMAN BEAL: All right, so we're all set with that motion. Then I think Mr. Reid was indicating he has a substitute motion. Eric.

MR. REID: Somebody has it already.

CHAIRMAN BEAL: Yes Doug, do you have a question?

MR. GROUT: I guess I look at what you had suggested, what you had indicated was in the Charter, and that we can invite them. They don't have to take it. I mean it is still ultimately their decision on it. I almost thing inviting the Council to have a voting seat on the Board is a more appropriate word. But if people are okay with just giving them a seat, they still have to take it. It's still their final decision after we invite them.

CHAIRMAN BEAL: Yes, we can invite them to our party but they don't have to show up. Yes, it's their decision to accept or not. You know the other thing with that first motion. I think it should actually be move to recommend to the Policy Board to take this Action. But Toni is Eric Reid's motion in the works? Eric, are you ready?

MR. REID: I move to substitute to recommend to the Policy Board to change the Herring Section to a Board and provide one voting seat to the New England Council, if that should say invite that's fine. This action is conditional on the New England Fisheries Management Council adding an ASMFC seat to their Herring PDT and Herring Committee as well.

CHAIRMAN BEAL: Is there a second to that motion? Pat Keliher. Eric, do you want to speak to your motion to substitute?

MR. REID: Yes there has been a lot of conversation with this. I've had discussions with Council leadership; New England Council leadership about it's a give and take situation. They would like to have a voting seat on our Herring Board. Currently they already have a seat on our Technical Committee. This is just a summation of some discussions I've had with the Council; just to expedite the situation. I don't mean to shortcut David, but basically this puts it you give and you get and there you have it. That was the whole rationale behind it.

CHAIRMAN BEAL: Pat, as seconder, do you want to say anything?

MR. KELIHER: No. I don't what the maker of the original motion thinks of this. But I was just thinking if acceptable we may be able to dispense with "friendlies" instead of going back and forth.

CHAIRMAN BEAL: I'll get to the original motion folks here in a second. But Doug Grout has his hand up.

MR. GROUT: This concept I am certainly supportive of; except I'm a little puzzled by a seat on the Herring PDT. I have a member of my staff on the PDT. I believe the state of Massachusetts has a member of their staff on the PDT. Do you have a member? We already have a number of state scientists on the PDT.

I don't see the need to have a seat on their PDT in there. There was no restriction. In fact they were looking for people to be on their PDT. That is the only thing that I don't think we need to really have that in there, and I was wondering if Mr. Reid would be willing to remove that particular part of it.

CHAIRMAN BEAL: I think Pat has a comment; then I'll go to Eric.

MR. KELIHER: I think the way that we were looking at it, Doug was that Council is represented on the Commission PDT, and when Megan who usually goes to the PDT is reminded that she's not a member of the PDT and can't vote. This would allow us to have Commission staff also there; potentially as a voting member.

MR. GROUT: Then maybe if I might follow up. Maybe we should refine it to say having an ASMFC staff seat to their Herring PDT; because as I said, ASMFC already has.

CHAIRMAN BEAL: Eric, any comments?

MR. REID: Yes, if you want to change it to ASMFC staff that's fine with me. It is my understanding that this is something that is acceptable to both the Commission and the

Council. I'm with you, Doug, no problem. If you want to change it to ASMFC staff, a staffer, one seat, however you want to say it. But it would be designated as staff that's fine.

CHAIRMAN BEAL: Pat Keliher as a seconder shook his head yes, he's okay with that. Does anyone have any problems with that change? I'll go to Tom.

MR. THOMAS P. FOTE: New Jersey and New York don't have members on the PDT. I mean I'm just pointing that fact out, Doug. You pointed out the three states, but two of the members of the Section don't have members on the PDT. Maybe it would be an opportunity for one of those states if they wanted to have a member on the PDT to basically do that. There is always this conversation going back and forth. Before we vote on the final motion I would like to say a little bit more. But I'll wait until that. I just wanted to comment on that immediately.

CHAIRMAN BEAL: Peter Kendall.

MR. KENDALL: Yes, I was just going to say. I appreciate this motion. I mean as the Herring Committee Chair too, I would be fine with having someone on the Committee meeting sit on the Committee meeting that's fine, and also somebody on the PDT, whether it be staff or even another state's staff that's fine as well. Then of course it still will have to be approved by the Executive Committee and the Council at that point too. But it sounds good to me.

CHAIRMAN BEAL: Dennis, I'll get to you. I have one question for Eric. The way it's worded now, ASMFC staff seat to the Herring PDT and Herring Committee. Is it the understanding that the Herring Committee seat would also be an ASMFC staff seat; or is that just for the PDT? Does that make sense?

MR. REID: I'll get my weed whacker out and get through all this. Well, I'm assuming it would be smart to have the Herring PDT be a staffer. I'm very willing to leave a seat on the Herring

Committee open. That perhaps gives an opportunity to New York and New Jersey; should they so choose, given Mr. Fote's comments. Yes, okay fine.

CHAIRMAN BEAL: That's good. I just wanted to make sure the current Section knew what the intent of the motion was. Pat, you're okay with that.

MR. KELIHER: Yes.

CHAIRMAN BEAL: We'll need to read this into the record before we vote; because it's been changed a time or two. Dennis and then I'll go to Tom.

MR. ABBOTT: When we change from a Section to a Board that automatically includes the Services, and have the Services prior to this proposed action expressed any interest in becoming members of the Herring Section Board?

CHAIRMAN BEAL: According to the Charter, if you all decide to go from a Section to a Board and the Policy Board agrees. Then it's up to NOAA Fisheries and Fish and Wildlife Service to decide if they want to be on that. They are not obligated to sit on the management board for Herring. Mike Pentony is in the back. I don't think the Service has indicated a preference one way or another yet; on whether they would or would not sit on the management board. Toni has got her hand up though.

MS. KERNS: NOAA has sent us a letter saying they were interested in a seat on the Board. Fish and Wildlife Service has not.

CHAIRMAN BEAL: Okay, I stand corrected. They have indicated that. Tom, and then I'll come back to Eric.

MR. FOTE: The Herring Section has a real sentimental value for me; because when I first got to the Commission in 1990, it was the only place that a Governor's Appointee or a

Legislative Appointee had a vote, because you weren't a Board. The Sections were made up of a caucus vote. I used to travel with Bruce Freeman up to New England; and basically sit on every Herring Board, because I said at least I get to vote at this Board and not just sit in the audience and not even being recognized to ask a question. It's a sentimental value for me. I also realized it was the states cooperating amongst themselves without the National Marine Fisheries Service, sometimes their strong handedness in past years, way back then basically directing us.

It was us deciding how we would function and work. It seemed to work fine for all these years. Times have changed and there is a lot more cooperation. I can understand why this move, but it has a little value to me and a little tug of my heart that this was the first place I was allowed to vote when I came to the Commission.

CHAIRMAN BEAL: No one is kicking you off, Tom, good news. Eric.

MR. REID: Just some clarifying info that just came to me. New England's PDT Policy doesn't allow a PDT member to be on a Committee as well. It would not be the same person in this motion; just so we're clear on that.

EXECUTIVE DIRECTOR BEAL: That's helpful, thank you. I'm glad you thought of that.

MR. REID: I was told to think of it, just so they can hear me.

CHAIRMAN BEAL: All right, any other discussion on the substitute motion? I guess we go back to Mr. Keliher's point earlier. Are the maker and seconder of the original motion willing to sort of make that motion go away if the Board is comfortable with that so we only have to vote once? It's kind of a formality either way. **Does anyone have any objection if the original motion is withdrawn and removed from the list of motions? No one objects to that.**

We're going to remove the original motion and we're going to make the motion by Mr. Reid, seconded by Mr. Keliher into the Main Motion. It's essentially a vote. Then I think is the Section ready to vote on that motion from Mr. Reid and Mr. Keliher, which I need to read into the record since it's been modified a time or two?

Move to recommend to the Policy Board to change the Herring Section to a Board and invite the New England Fishery Management Council to have one voting seat. This action is conditional on the New England Fishery Management Council adding an ASMFC staff seat to their Herring PDT and an ASMFC seat to the Herring Committee, with the understanding that that will not be the same person.

I ad-libbed that last part, are there any objections to the motion that is on the board right now? Seeing none; it carries unanimously. We'll bring that forward to the Policy Board on Thursday morning later this week.

DISCUSS SPAWNING PROTECTION

CHAIRMAN BEAL: Ritchie, we've got about ten minutes to at least introduce the spawning issue and start the dialogue there, and see how far we can get. If you're ready it's all yours.

MR. WHITE: It should take a lot less than that. I was thinking and looking at Matt's report; and the only thing we can really affect other than quota is to ensure that there is the best spawning process that can take place. My thoughts are that we start an addendum to tighten spawning to the best extent that we can. I think there are tools in the last addendum that we could use. My suggestion is in October that that be an agenda item to discuss; starting an addendum to tighten our spawning regulations. That would be in 1A. Secondly, Matt refreshed my memory that in talking about spawning on Georges Bank the

Technical Committee had talked about a \$50,000 figure that it might take to implement a program like that.

If this soon to be Board thinks that makes sense to pursue that; then we might recommend to Executive Committee, or whoever is going to make decisions on the pot of money that we found out about this morning that possibly that could be a use of 50 odd thousand dollars.

CHAIRMAN BEAL: Any comments or questions or concerns about adding that to the October agenda? Dr. Pierce.

DR. PIERCE: I think that's an appropriate course of action; consideration of steps to deal with spawning protection on Georges Bank. We've talked about that for a long time. My fellow Commission member, Ray Kane and Sarah Peake have always pushed that. For a number of reasons we haven't gone in that direction, but we should in light of the status of the stock.

Now that we have I assume, Mike Pentony, or his representative going to be a member of the Board. We now have more formal federal representation. That should promote more discussion about what can be done relative to a spawning closure in those federal waters; and the extent to which NOAA Fisheries can be onboard and can assist with that endeavor. Yes, I think it's smart.

CHAIRMAN BEAL: Doug Grout.

MR. GROUT: Yes, I would certainly support the Addendum and this recommendation of looking back at the paper that Matt had put together about that; about how to do it, how much it was, some of the drawbacks. That was probably six years ago, I would guess, somewhere around there five. Okay, so maybe inflation hasn't gone up. Just to consider that the price might be a little bit higher now that we're a few years down the road. But still, I think that both of them are excellent ways to move forward.

CHAIRMAN BEAL: Ray.

MR. KANE: Thank you, Doug, for reminding us of inflation. But speaking with Matt this morning, I believe a lot of the spawning work is being done at the dockside now, Matt, is that the discussion we had this morning?

DR. CIERI: Yes, I'm not sure if you guys are aware but the state of Maine actually is going to start doing a fishery independent spawning survey starting this year hopefully, if we can get all of our ducks in a row, for at least the inshore Gulf of Maine. But yes, a lot of the work that I talked about earlier was portside.

Basically, going out and taking a look at samples from commercial vessels. That might be difficult; depending on where these quotas wind up, as you can possibly imagine. But we can certainly think our way through the problem; if you guys put it on the agenda, and after I send Megan this paper.

CHAIRMAN BEAL: Sounds good. Are there any other comments or thoughts? It sounds like there is an overall agreement to get that onto the agenda for October. All right we will add that.

ADJOURNMENT

CHAIRMAN BEAL: Anything else to come before the Herring Section, seeing none; that's probably the last time anyone ever says this. The Herring Section stands adjourned.

(Whereupon the meeting adjourned at 2:00 o'clock p.m. on August 7, 2018)