

**PROCEEDINGS OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
WINTER FLOUNDER MANAGEMENT BOARD**

**The Westin Crystal City
Arlington, Virginia
February 6, 2018**

Approved May 2, 2018

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INDEX OF MOTIONS

1. **Approval of agenda** by consent (Page 1).
2. **Move to elect Dr. David Pierce as Chair and David Borden as Vice-Chair of the Winter Flounder Management Board** (Page 1). Motion by Pat Keliher; second by Ritchie White. Motion carried (Page 1).
3. **Move to accept the 2017 Winter Flounder FMP Review and state compliance report** (Page 16). Motion by Doug Grout, second by Colleen Giannini. Motion carried (Page 16).
4. **Motion to adjourn** by consent (Page 16).

ATTENDANCE

Board Members

Pat Keliher, ME (AA)	David Borden, RI (GA)
Steve Train, ME (GA)	Eric Reid, RI, proxy for Sen. Sosnowski (LA)
Sen. Brian Langley, ME (LA)	Colleen Giannini, CT, proxy for M. Alexander (AA)
Doug Grout, NH (AA)	Sen. Craig Miner, CT (LA)
G. Ritchie White, NH (GA)	Jim Gilmore, NY (AA)
Dennis Abbott, NH, proxy for Sen. Watters (LA)	Emerson Hasbrouck, NY (GA)
Raymond Kane, MA (GA)	Jeff Brust, NJ, proxy for L. Herrighty (AA)
Sarah Ferrara, MA, proxy for Rep. Peake (LA)	Adam Nowalsky, NJ, proxy for Asm. Andrzejczak (LA)
David Pierce, MA (AA)	Alison Murphy, NMFS
Jason McNamee, RI (AA)	Sherry White, USFWS

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

Ex-Officio Members

Paul Nitschke, Technical Committee Chair

Staff

Robert Beal	Megan Ware
Toni Kerns	Jessica Kuesel

Guests

Rachel Baker, NOAA	Heather Corbett, NJ DFW
Bob Ballou, RI DEM	Steve Murphy, NC DMF
Chris Batsavage, NC DMF	Jeff Pierce, AHOM
Peter Burns, NMFS	Arnold Leo, E. Hampton, NY
Rene Cloutier, ME Marine Patrol	

The Winter Flounder Management Board of the Atlantic States Marine Fisheries Commission convened in the Jefferson Ballroom of the Westin Crystal City Hotel, Arlington, Virginia; Tuesday, February 6, 2018, and was called to order at 2:15 o'clock p.m. by Chairman Robert E. Beal.

CALL TO ORDER

CHAIRMAN ROBERT E. BEAL: I would like to call the Winter Flounder Management Board to order. As with the Herring Section, my name is Bob Beal; I'm the Executive Director of ASMFC. The Winter Flounder Management Board finds itself with no Chair and Vice-Chair at this time; due to similar circumstances in that there have been retirements and other issues that have prevented those folks from serving that were previously elected.

APPROVAL OF AGENDA

CHAIRMAN BEAL: I will kick off the meeting and move through the agenda all the way up through the election of Chair and Vice-Chair; and then the newly elected Chair will take over the meeting from that point on. With that there has been an agenda distributed in the briefing materials; any changes or additions to the agenda? Seeing none; the agenda is approved.

APPROVAL OF PROCEEDINGS

CHAIRMAN BEAL: We have a series of minutes from about a year ago, so January of 2017 is the last time this Board has met. Are there any changes or adjustments to those minutes from the last meeting of the Board? David Pierce.

DR. PIERCE: Yes, on Page 2 of the minutes, the first column about the fourth paragraph down. There is a sentence that reads; in terms of considering changes to our states waters acidification. I think that is supposed to be specifications, so just a change in that would be useful.

CHAIRMAN BEAL: Thank you, David; somebody appeared to be overly worried about ocean

acidification was trying to get it in there as much as they could. All right, we will make that change. Are there any other adjustments to the minutes from January, 2017? All right seeing none; those proceedings stand approved.

PUBLIC COMMENT

CHAIRMAN BEAL: Public comment, is there any public comment for items that are not included on the agenda? Seeing none; we'll keep moving forward.

ELECTION OF CHAIR AND VICE-CHAIR

CHAIRMAN BEAL: Agenda Item Number 4 is election of a Chair and Vice-Chair for the Winter Flounder Management Board; any nominations? Pat Keliher.

MR. PATRICK C. KELIHER: After a lot of deliberation, **I would like to nominate the only person in the room who read the minutes of the Winter Flounder Meeting, David Pierce from the Commonwealth of Massachusetts for Chair; and from the great little state of Rhode Island, David Borden for Vice-Chair.**

CHAIRMAN BEAL: Thank you Mr. Keliher, is there a second to those nominations? Ritchie White, thank you. We have nominations before the Board; David Pierce as Chair, David Borden as Vice-Chair. **Are there any objections to the approval of these two nominations for the leadership of this management board? Seeing none; congratulations David and David, good luck.** Now I will step down.

CHAIRMAN DAVID PIERCE: Well thank you everyone. I started my career working on winter flounder back in 1972. My career is not yet over; but nevertheless it's nice to get back to winter flounder in a meaningful way. We've covered everything on the agenda up to this particular point.

**REVIEW OF THE 2017 GROUND FISH
OPERATIONAL STOCK ASSESSMENT FOR GULF
OF MAINE AND SOUTHERN NEW
ENGLAND/MID-ATLANTIC
WINTER FLOUNDER STOCKS**

CHAIRMAN DAVID PIERCE: Next on the agenda we have Review of the 2017 Groundfish Operational Stock Assessment for Gulf of Maine as well as Southern New England/Mid-Atlantic Winter Flounder Stocks. Paul Nitschke is going to provide that review for us; if you would, Paul.

MR. PAUL NITSCHKE: Good afternoon. My name is Paul Nitschke; I'm Chair of the Winter Flounder TC. I work in population dynamics in Woods Hole. I also have the lead on the Gulf of Maine winter flounder assessment, and I'm also the population dynamics representative on the groundfish PDT.

First I want to go through a little bit of the process that the Center is trying to do with the operational assessments. We're planning on trying to do these assessments, these operational assessments every two years; so that we rely less on projections. We have learned from the past that relying on old projections hasn't worked too well.

The projections tend to be overly optimistic and biased high. We have gotten burnt from that in the past. Now the plan is to update the assessments more often, rely less on the projections. In doing this we do these operational assessments. They are not full benchmark assessments; however there is a review component to these operational assessments also.

We do all 19 or 20 stocks every two years for groundfish. The last time we did them was last summer; and the review was in September. The other initiative is to do this efficiency initiative; to make the assessments more automatic. Put all the information online for everyone to see, it's more of a transparent process.

All the figures and tables are online on this data portal at this website. The figures and tables are updated; there are the model inputs and outputs, diagnostics, maps from the surveys, maps from the commercial fisheries. There is a lot of information on the data portal. For the operational assessments, we have these generic terms of reference.

There are some restrictions on changes that can be made; in order to get through all 20 stocks in one week. For the last round we basically updated the data; so we added two years of information to the analytical models. We run the models and estimate the stock size and fishing mortality rates, update the biological reference points, evaluate stock status, estimate the overfishing limits and catch advice coming out of those models.

Of course we have source of uncertainty and research recommendation. There is also Plan B developed in case the models don't pass peer review; so there is something to fall back on if they fail that review. This time around we had some information on catchability. This came from some cooperative research work that was recently done.

This information was used as a diagnostic in the analytical models. For some of the empirical assessments it was used directly in the estimates. As I've said there are some things we don't change. We don't change the life history; such as the natural mortality rates, selectivity, weightings in them all we don't try to change or haven't changed in the past. We retained this rule for the retrospective; which was developed at GARM III basically doing it on a retrospective adjustment, if the Mohn's Rho is outside of the 90 percent confidence intervals of the model. However, this didn't apply to the winter flounder stocks.

First up I'm going to go through the Gulf of Maine winter flounder Operational Assessment. I have the lead on this stock. This was last updated at the 2015 Operational Assessments. The benchmark is in 2011 at SARC 52. This is an empirical approach based on 30 plus survey area swept estimates.

Gulf of Maine winter stock, the stock status is overfished is unknown and overfishing is not occurring. The Gulf of Maine stock was historically the smallest of the three winter flounder stocks. It's concentrated in inshore waters in Mass Bay and Cape Cod Bay mostly north of Cape Cod. The Analytical assessment did not pass peer review at GARM III. It also did not pass peer review again at SARC 52; basically due to a very large retrospective pattern.

We tried looking at different models. We looked at the VPA, scale model, the ASAP model, other statistical catch-at-age models. But they all have this real major conflict within the data. Basically the models can't handle this lack of a relationship between the large decrease in the catch over the time series with little change in the indices and age structure over time.

Now the assessment is basically just based on the straight 30 plus area-swept biomass which comes directly from the surveys. For the operational assessments we do update the trends; just to keep an eye on them. There are updated trends for the NMFS survey, Mass DMF survey, and the Maine/New Hampshire surveys.

For this round we estimated the catch for 2015 with a terminal year of 2016. The catch is comprised of the commercial landings and recreational landings, recreational discards, the large mesh trawl discards and the gillnet discards. You can see here there is a large change in the landings over the time series from the 1980s.

There has been a large reduction. At the end of the time series we were around 5 percent of what the landings were in the 1980s. Most of the landings are coming from the state of Massachusetts, and from the trawl fishery. In the past about 20 percent or so came from the gillnet fishery.

Here are the total removals for the Gulf of Maine stock. The recreational component was

significant in the 1980s. That pretty much disappeared in the early 1990s, and remains a very minor component of the removals. Once again you can see that large decline in that catch series. Here are the trends in the raw survey indices. On top is the NMFS surveys, in the middle is the Mass DMF surveys, spring and fall, and on the bottom is the Maine/New Hampshire spring and fall surveys.

The surveys tend to be relatively flat over the entire time series. The Mass DMF spring surveys show perhaps a slight decline over the time series. However, the Maine/New Hampshire spring survey shows a little bit of an increasing trend. Now the assessment is based on just the area swept from the surveys. The issue with winter flounder is we don't have a survey that covers the entire stock. We basically use three different surveys with non-overlapping strata to try to cover the stock. We use the NMFS survey to cover the offshore strata and strata in Mass Bay and Cape Cod Bay. The Mass DMF survey is used for the very shallow strata in Cape Cod Bay and Mass Bay. Those strata are very small. However, there are very large catches in those strata.

North of Massachusetts we used Maine/New Hampshire survey. This is a larger area, however very few, 30 plus area fish are caught in that survey. Here are the numbers that go into that expansion. On the top is this survey area. Then we've got the footprint for each survey, which produces that expansion factor.

This is the length frequency distribution from the Maine/New Hampshire survey. That survey does catch a lot of fish; however from these length-frequency distributions you can see that very few 30 centimeter plus fish are caught in that survey. Here is the basic equation for exploitable biomass. It is just simply the 30 plus biomass index multiplied by this expansion factor; which is the total survey area divided by the tow footprint times q .

Now q here you can think of as the efficiency of the gear itself. It's an important assumption and the results are sensitive to that estimate or that assumption of q . For exploitation rates is just

simply the catch over the 30 centimeter plus biomass. For Gulf of Maine winter flounder we developed biological reference points based on F40 from a length-base-yield-per-recruit analysis, which had the same life history assumptions that went into the 30 plus area swept.

We used a 30 plus centimeter knife-edge selectivity in that yield-per-recruit analysis, and a natural mortality rate of 0.3. This produced an FMSY exploitation rate of 0.23, 75 percent of that value is 0.17, which was used for determining the ABC. At SARC 52, we had very little information on what that q should be in this empirical approach.

At that time we had a range of differing q assumptions; 0.6, 0.8, and 1. The SARC 52 Review Panel basically picked the 0.6 assumption based on some information on the Georges Bank winter flounder BPA at that time. However, now we have some experimental information on efficiency from the Bigelow from winter flounder.

That average estimated q came out to 0.866 and was used for this assessment. We basically used the average of the fall survey queues to come up with that 0.866 value, which was used for all three surveys, acknowledging the fact that the different surveys have different gear types. The experiment basically looked at the efficiency of the Bigelow net, which is on the left here.

The Bigelow uses a roller gear so that the survey can sample different habitat types. For this work we want to look at the efficiency of flat fish, so we compared the catch rates from the Bigelow net versus a flat fish net. The flat fish net, flat net was a state of the art net for catching flat fish, had a thick chain for the foot rope instead of the roller gear, and tended bottom very closely.

These are the results that came out for winter flounder that came out of that comparison

between the chain sweep and the rockhopper gear, at different lengths and for day and night tows. At night you can see there was very little difference actually in the efficiency between the two different gear types. During the day there was a difference with the chain sweep catching more fish than the Bigelow gear. We only used a 30 plus centimeter difference here, which produced just 0.87 q assumption. These are the results coming out of that calculation for all the different surveys. On the bottom is the fall survey and on top is the spring survey. The different colors represent the different surveys that go into that total estimate for the biomass. At SARC 52, the decision was made to use the fall survey, because there were concerns that in the spring we could be missing fish due to spawning within the estuaries where there is no survey information.

However, as we update these estimates, you can see that the total estimates for the spring and fall are pretty similar now. There is not a lot of difference between the two. The arrows here signify what data is used in determining the actual catch advice. When we update the assessments every two years, we basically use every other year for that catch advice.

You can see here from 2014 to 2016 that that total estimate does decrease between those two years. That contributes to the reduction in the ABC for this stock. The other big contributing factor to the reduction is the change in the q assumption. That basically results in a 30 percent reduction in the catch advice.

Here are the exploitation rates coming out of the spring and fall surveys producing very similar trends and relatively low exploitation rates over time. Here is the biomass trend from this method for the Bigelow years. One of the puzzling results to this is we have this declining biomass trend.

However, the exploitation rates are low and far below the overfishing definition. It's not clear why the stock is not responding to the low exploitation rates. Another way of looking at this stock status plot, you can see here the biomass tends to be

declining under these low exploitation rates. One of the major sources of uncertainty is to q .

There was a review of the sweep study. There was some concern about sample size for winter flounder in that study. More information on estimating that q would give us more confidence in the area swept estimates; and also more studies on the state surveys, because they used a different gear type.

Another comment was to perhaps produce more stable catch advice coming out of this method by using multiple years or multiple surveys. There is quite a bit of inter-annual variability in the estimates. Doing some sort of moving average would perhaps stabilize that catch advice. As I've said, one of the major concerns is why isn't this stock responding to the low exploitation rates?

A general concern is the fact that this method, you can't get a biomass status out of it. The PDT produces these; we call them catch performance plots. We produce these plots for the SSC to consider for all the groundfish stocks. Here you can see we put on the recent catches. Compare that to the historical OFLs, and the ABCs that came into play in 2010.

Then there is a catch assumption; for the analytical models this is the catch assumption used in the projections themselves for the bridge here. Then in 2018, '19 and '20, you can see the updated estimates coming out of the new assessment. You can compare that to the results from the past and you can see how that changes. Here you can see the black line, which was the historical ABCs compared to the updated ABCs, which is that blue line. There is a pretty big reduction in that catch advice. The yes/no on the X axis represent the overfishing status in the terminal year of past assessments. I also included just the straight numbers from that plot if people are interested in seeing the actual numbers and the changes in those numbers. For this one the OFL is simply based on that FMSY estimate multiplied by the 30 plus

centimeter area-swept estimate; and the ABC is 75 percent of that value. The OFL was calculated at 596 metric tons and the ABC was 447 metric tons; which has held constant for the three years. I can take questions on the Gulf of Maine or I can go into southern New England if you want.

CHAIRMAN PIERCE: Let's work off of the Gulf of Maine for now. Do any of you have questions for Paul regarding the operational assessment for Gulf of Maine winter flounder? David Borden.

MR. DAVID V. BORDEN: Paul, have you ever plotted the rise in the seal population in the Gulf of Maine versus population of winter flounder; to see if there is a correlation between the two? I keep reading all these news releases from various sources talking about there being dramatic increases north of the Cape. Is there a relationship here?

MR. NITSCHKE: Yes, I mean there is a dramatic increase in the seal population. I don't know how many survey numbers we have. We do know there is a large increase in that population; especially also it affects the southern New England stock, maybe even more important for the southern New England stock with the gray seal explosion on Cape Cod.

CHAIRMAN PIERCE: Other questions for Paul. I have one, Paul. You indicated in your presentation that the value of q , the catchability coefficient was derived from commercial vessel experiments, am I correct? Okay, all right so you came up with those q values from those experiments using two different types of nets, right, one with rockhoppers and one with chain-sweeps?

MR. NITSCHKE: Right so it was on a twin trawl fishing both nets at the same time. One net was the exact Bigelow net and the other net was an efficient flatfish net.

CHAIRMAN PIERCE: Okay and then those q values that you determined from those experiments would apply to the catches by the Bigelow; is that correct?

MR. NITSCHKE: Right, so if we assume the flat net is 100 percent efficient, we get some idea of the

relative difference between those two gear types, and that difference was applied to the Bigelow for the area swept.

CHAIRMAN PIERCE: Okay applied to the Bigelow catches. But you mentioned that the Bigelow doesn't catch (I'm paraphrasing a bit) the Bigelow doesn't do a very great job catching winter flounder, because of the size of the vessel and whatever factors. How does that factor in to the application of the q value from those experiments to the Bigelow catches themselves? Shouldn't the q value be much lower for the Bigelow, because of the size of the vessel and the fact that it doesn't catch much winter flounder?

MR. NITSCHKE: Originally when we did this approach, we assumed a q of 0.6. Now with the updated information we now think that was too low. We think it's higher. We actually think for winter flounder it looks like the Bigelow was more efficient than we thought.

CHAIRMAN PIERCE: The higher the q value the lower the biomass overall.

MR. NITSCHKE: Correct.

CHAIRMAN PIERCE: Okay. The new q value is higher than what it was. Well with that said, I'll just offer one additional piece of information regarding the q value. This coming spring, May, the Division of Marine Fisheries will be spending three to five trips devoted to work on a fishing vessel with nets to get a better understanding of the q value for the net that we are using in our bottom trawl survey for the Gulf of Maine cod survey and the herding effect.

That's what we're looking into. The Board, we may be, later on this year, be looking at some additional information relative to the q values. It doesn't effect this year's information, but maybe down the road. All right no other questions for Paul on the Gulf of Maine. Operational assessment, let's get into the southern New England/Mid-Atlantic.

MR. NITSCHKE: Okay southern New England/Mid-Atlantic. The lead scientist for this stock is Tony Wood. Like the Gulf of Maine this was last assessed in 2015 at the Operational Assessments. The benchmark was also in 2011 at SARC 52. The southern New England stock was historically the largest of the three winter flounder stocks.

This assessment does have an analytical model, statistical catch at age model. The ASAP model with age is 1 to 7 plus spanning the years from 1981 to 2016. For the catch at age the commercial landings, commercial discards, recreational landings and recreational discards are in the catch at age. For the commercial discards we assume a 50 percent mortality rate; and for the recreational discards we assume a 15 percent mortality rate.

This was also true in the Gulf of Maine stock. Like the Gulf of Maine stock, there is a very large reduction in the removals over time from the 1980s. The terminal year was less than 4 percent of the removals that occurred in the early 1980s. The 2016 estimated catch was 679 metric tons. Like the Gulf of Maine stock, the recreational component was significant in the early '80s; however the recreational component has decreased and remains a pretty minor component of the removals.

I forgot to mention, as the output control system came onboard with Amendment 16, in 2009 this stock became a no possession stock, from 2009 into 2013. That no possession stock did result into a change of those fish that would have been landed into discards, so it also creates some uncertainty in the assessment, because we assume this 50 percent mortality rate on the discards.

It puts more pressure on that mortality rate, because a greater proportion of the removals are now assumed to be discarded. With a zero possession trip limit, mortality is still occurring and it's not clear whether the mortality rates were, or whether the catch truly was much lower during those zero possession days compared to more recently.

This can be seen in the proportion of the removals. You can see where that trip limit came into effect in 2009, where a greater proportion of the removals were discarded. The catch at age is mostly comprised of Age 3 and 4 fish. The mean weights at age are relatively constant for this stock over the time series. Now for many of the groundfish stocks we have large declines in the mean weights at age at the end of the time series. We don't see evidence of that with this stock. This assessment uses many different surveys. There are many different indices of abundance. We have the NMFS spring and winter and fall surveys, the Mass DMF spring survey, the Rhode Island spring survey, Connecticut spring, New Jersey oceans and rivers, URIGSO survey, and there are two young-of-the-year-recruitment surveys, the Mass DMF survey and the Connecticut survey.

All the surveys show very similar trends. We see this declining trend in abundance over the entire time series. All the survey information agrees with those trends, where we have low estimates in the survey abundance at the end of the time series. These are the trends for the summer, spring, fall, winter and Mass DMF spring surveys.

Here is a comparison for the state surveys, Rhode Island spring, Connecticut spring, New Jersey oceans and New Jersey Rivers, and the URIGSO survey. These surveys are near record lows at the end of the time series. For the age 0 indices, the Connecticut survey is showing very low recruitment at the end of the time series.

The Mass DMF survey is showing a little bit more of a flattening out of that survey trend at the end. Now that NEAMAP survey wasn't part of the benchmark assessment at that time. I'm showing this here, because I think there are some questions about this survey last time I was giving this talk.

However, keep in mind this survey is not in the stock assessment. For the spring survey you

can see the green is the strata that go into that index; the green strata, which is a larger area than the fall strata that goes into the index. The fall strata are basically concentrated in that Rhode Island end of Long Island area, because most of the fish are offshore during the fall.

Here are the trends in the NEAMAP survey. Overall I don't think the trends disagree with what's coming out of the stock assessment; fairly flat over this time series. In the spring there was an increase in 2016 in the survey. However, in the fall index we didn't see that increase in 2016. Perhaps the fall survey is showing a little bit more of a declining trend.

For the biology, we assume an M of 0.3; and the maturity schedule comes from the Mass DMF spring survey, which came out of SARC 52 using the entire time series. These are the estimated selectivities from the commercial side in the model. One of the concerns is as we update this model the second block seems to be coming more domed shaped as we add data.

There is some concern about a buildup of cryptic biomass in the model. Because we have domed shaped selectivities on the commercial side, we also estimate domed shaped selectivity on the indices themselves. However, the indices the selectivity doesn't change as much as we update the model with more data.

They don't to be changing as much as on the commercial side. Here are the trends in the total biomass and SSB and exploitable biomass. There is this declining trend in all the biomass estimates. Here you can see that effect of the dome shaped selectivity when you compare the SSB trends and the exploitable biomass trends.

You're seeing that flip over at the end of the time series, where this cryptic biomass is creeping into the model. There was a retrospective pattern in this assessment; however, it wasn't severe enough to warrant a retrospective adjustment in the projections. For the stock status, this stock started out with high biomass and high fishing mortality rates; which drove the stock down to low biomass

and high fishing mortality rates. However, now in the last nine years we haven't been overfishing this stock. However, there is not any evidence of rebuilding biomass; even if we weren't overfishing in the last nine years.

The stock doesn't seem to be responding to these low fishing mortality rates. On this plot you can see where the retrospective adjustment, which is that red dot, it's within that block, which is the 90 percent confidence intervals in the terminal year of the model, so no adjustment was made.

Here is the change in the biological reference points from 2015 to 2017. FMSY increased from 0.33 to 0.34. SSB_{msy} decreased from 27,000 metric tons to about 25,000 metric tons. These are part of the standardized plots coming out of the standardized assessment models from the operational assessments. On the left is the spawning stock biomass trend.

The solid line is the updated model; the dashed line is the previous model, and the shaded area is the 90 percent confidence intervals around the updated model. For southern New England winter flounder, the biomass decreased quickly below the overfished threshold, and has remained below the overfished threshold for several decades.

The issue now is it appears the biomass is actually going in the wrong direction; where it is actually decreasing at the end of the time series, despite the fact that fishing mortality rates are below the overfishing threshold at the end of the time series. This is mainly due to this large decline in the estimated recruitment over the time series.

There is a little bit of an increase at the end of the time series. It remains uncertain whether this increase will continue or if this will change in updated models; because we don't see a lot of evidence of increases in recruitment in the survey indices themselves. The biological

reference points for this stock are based off a stock recruit relationship with a fixed steepness.

One of the issues in particular for this stock is the points at the end of the time series all fall below the stock recruit relationship. When we look at the residual pattern over time, you can see it in this plot where all the residuals are on the negative side; indicating that if you did long term projections that you would likely overestimate the recruitment going into those projections.

This is another reason not to use long term projections for this stock. Here are the trends in the abundance at age over time. You can see that change in recruitment, how that changes the age structure through time. You notice at the end of the time series this is building up in proportions of the plus group.

You can see that in the proportion graph on the right. This is perhaps more evident when we look at this in terms of spawning stock biomass; where you see at the end of the time series we have this building up of the plus group, which a proportion of that plus group is cryptic biomass, which the fishery nor the surveys can catch.

That building up of the cryptic biomass is a source of uncertainty. The natural mortality rate has also been questioned as a source of uncertainty. The fixed steepness in the stock recruit relationship is a concern; and we're also not getting a lot of length information from the recreational side, mainly due to the fact that the recreational fishery is so small now. Of course the retrospective pattern is always a source of uncertainty. Here are the catch performance plots that the PDT developed for southern New England winter flounder.

Here you can see the estimated catch is closer to the ABCs; unlike for the Gulf of Maine where there was a large difference, between those two. More recently you can see that the updated assessment and the updated projections coming out of the assessment show a slight increase in the ABCs from those projections; so comparing that black line to the blue line.

Here are the numbers that go into that plot. However, when the SSC looked at this information there was concern about the cryptic biomass and the stock recruit relationship. The projections were not used for catch advice. Basically, the ABCs were determined using average catch from 2014 to 2016; which produced an ABC of 727 metric tons. The OFLs were still based on FMSY projections at 2018, and that number the 128 metric tons was held constant for three years. I can take questions on southern New England.

CHAIRMAN PIERCE: Board members, this is the assessment presented to the New England Fishery Management Council, reviewed by the Plan Development Team; certainly critiqued by the SNS Committee, and then it all resulted in the establishment of a new OFL as well as the ABC, and then the catch limits.

Specific for this group today, this Board, are the subcomponents; the state waters subcomponents, which we'll get into very shortly, discussion about those components and how we should react to those new numbers. With that said, are there any questions of Paul regarding this assessment? All right, I see none. There is definitely a lot to digest for sure.

CONSIDER SPECIFICATIONS FOR THE 2018 FISHING YEAR

CHAIRMAN PIERCE: If there is no objection, I am going to skip over Number 6, which is Discuss Potential Management Response to Operational Assessment, potential action.

We're not really in a position as a Board to consider what actions we might want to take; until after we hear a presentation from Megan on the Specifications for the 2018 Fishing Year, where we get into the issue of the state water subcomponents and what this Board would like to do regarding those components, and restraining catch further if indeed that is the desire of the Board. With that said, we'll turn to Megan and she'll now give us her

presentation specific to those winter flounder specifications and the overview of them.

MS. MEGAN WARE: At its December meeting the New England Council approved Framework 57; which included the ACLs for Gulf of Maine and the southern New England/Mid-Atlantic winter flounder stocks. The largest change did occur in that Gulf of Maine stock; where the ACL was significantly reduced. In the Gulf of Maine the 2018 total ACL is 428 metric tons; which is a 348 metric ton decrease from the previous year. The state waters subcomponent is 67 metric tons; which is a 55 metric ton decrease from the previous year.

Just for some context, the 2016 state waters total catch was 100.9 metric tons. This is of concern, since this is significantly above the 2018 state waters subcomponent of 67. This suggests that the Board may need to consider different management tools or measures for this reduced subcomponent. In southern New England and Mid-Atlantic, the 2018 total ACL is 700 metric tons, which is a 49 metric ton decrease from the previous year. The state waters subcomponent is 73 metric tons, which is actually a slight increase. This is because the percentage associated with that state water subcomponent increased from 9 percent to 10 percent. Then for context the 2016 state waters catch was 64.7 metric tons; so that is below what the 2018 state waters subcomponent is.

Given the Board may need to consider change; specifically to those Gulf of Maine management measures. This slide is a quick review of the tools that the Board can adjust through Board action; and this is under Addendum III. For commercial measures the Board can adjust the size limit, the season, area closures, a trip limit or some sort of trigger for a trip limit.

That would trigger a reduction in the trip limit when a certain percentage of the state waters subcomponent is reached. For the recreational measures the Board can change the size limit, the bag limit, and the season. Then this is a review of our current Gulf of Maine, southern New England/Mid-Atlantic regulations. These have been in effect since 2014.

If no action is taken by the Board then these are the management measures that will roll over into 2018. There is a 500 pound commercial trip limit in Gulf of Maine, and an 8 fish bag limit for the recreational fishery. In southern New England it's a 50 pound commercial trip limit and a 2 fish recreational fish limit; and those all come with 12 inch size limits. We'll just leave this up here for the discussion.

CHAIRMAN PIERCE: As a reminder, in your binder or maybe on the table, there is a briefing document showing the specifications for the 2018 fishing year. It's a one pager and it has the information that Megan just presented. You can reference that to ease discussion as to what the Board would like to do in response to the presentation given by Megan.

Are there any questions of Megan regarding what she has presented? All right, no action would mean status quo for the upcoming fishing year; which begins May 1, 2018. We correspond to the federal fishing year; May 1 through April. That is what status quo would result in, as shown in that one pager.

I'll just call attention to one important point made by Megan; and that is for the Gulf of Maine stock the state waters subcomponent is now 67 metric tons. This is what is essentially set aside for the states; in hopes by the Council that the states will do whatever is possible to restrain the catch to that particular number.

It's not an allocation it's a set aside; expected catch inside state waters, so 67 metric tons, it's a decrease from 122 metric tons the previous fishing year. Of note, and highlight this because it's relevant, 2016 total catch, we don't have 2017. But 2016 total catch in state waters was about 101 metric tons, so with 101 metric tons in 2016, the subcomponent for 2018 is 67 metric tons. That is about a one-third reduction in the amount of catch in 2016 to get us presumably to that 2018 state water subcomponent, once again for the Gulf of Maine.

I'm not speaking of southern New England/Mid-Atlantic. That is the information we have before us; and the question of the Board is, do you care to take any specific action in response to these finding and what the Council has prescribed as subcomponents? Is there a need to consult the Technical Committee regarding what sorts of options might be available to get that necessary reduction? Are there any thoughts; Bob Ballou.

MR. ROBERT BALLOU: Rhode Island has developed a memo that has been presented to the Board; it came out late last week. I'm not sure if everyone has had a chance to read it. But the upshot is that we would like the Technical Committee to evaluate the 50 pound possession limit in the southern New England/Mid-Atlantic region; with a view to considering an aggregate weekly limit as an alternative approach.

The memo identifies two or three different options for how that could be done; and it calls attention to the fact that with that 50 pound possession limit, bycatch and discard mortality is a significant issue, and could well be addressed by an aggregate program. There hasn't been a lot of analysis done on it yet; and we would respectfully request through the Board that the Technical Committee take a look at the options that have been presented.

I know the Division of Marine Fisheries in Rhode Island is prepared to offer additional analytic support to that approach. It would be our preference to either await final decision on specifications until that analysis is completed and presented back to the Board for review; or potentially consider that as a conservation equivalency approach under the current specifications.

CHAIRMAN PIERCE: I'm going to read something into what you just said; and that is it seems that you do not believe that this Board needs to take any specific action to reduce states waters catch, recreational or commercial of southern New England/Mid-Atlantic flounder that you believe that should be status quo. Then to go beyond that

you're looking for a Technical Committee review of an aggregate landing limit as opposed to a daily limit. Am I properly characterizing what you've concluded and what you are recommending?

MR. BALLOU: The answer is yes.

CHAIRMAN PIERCE: David Borden.

MR. BORDEN: Are you at the point in the meeting where you just want general comments; or try to answer the question you asked?

CHAIRMAN PIERCE: I'm certainly willing to take general comments. Bob jumped ahead a little bit and that's fine. But David, what do you have to offer?

MR. BORDEN: Just a couple of observations here. We've got a rebuilding deadline of 2023. If my memory serves me correctly, this is the second rebuilding timeline we've had for this stock. In listening to Paul's presentation, and thank you for that presentation it was excellent. I keep coming back to the same point; that we have a disconnect between the Interstate Fishery Management Plan and the Council Plan. The interstate plan, particularly in southern New England and the Mid-Atlantic, is a super restrictive plan.

I mean the allowances of 50 pounds and 38 fish. I personally think that that is justified; in other words the status of the stock justifies that position. But where I really suffer, the logic breaks down at least in my own mind, is when I think about the federal waters component of this stock, where they have a different operating system.

The fishermen are allowed to target the stock; as long as they have a catch allowance for the stock. There is targeting; and in listening to Pau's presentation, at least with southern New England. We're in this mode where the recruitment and I wrote a note to myself, the

recruitment has increased every year, I think, since 2012. We're in this mode, the SSD is going down I think; and the recruitment levels are going up. We've got this disconnect between the two regulatory systems. Nature is actually helping us out; because the recruitment values are going up. My thinking keeps coming back to this, are these two management approaches compatible?

I think my answer to that is they are not; because one allows targeting and the other one is a bycatch system, at least in southern New England. We need a process to reconcile these differences. At least from my perspective, I don't know whether anybody else agrees with that. But I think these two management strategies are incompatible.

CHAIRMAN PIERCE: Are there any further comments? Pat.

MR. KELIHER: In regards to the Gulf of Maine. I'm not sure I'm ready to suggest any management changes without further Technical guidance on this. I know from looking at our own Maine/New Hampshire trawl survey data, we're not seeing any larger fish. It was certainly shown in the presentation here today. Creel surveys are showing we're not interacting with a lot of fish on the majority of the coast of Maine.

From a recreational fish measure perspective, I'm having a hard time figuring out how we would, you know we probably could make changes within the state of Maine rules and not have any impact to the fishery if we're not interacting with them. While that may be a token gesture to make a change, if it doesn't have any appreciable difference in what's going to be landed then I'm having a hard time making the determination on how we should make management changes at this time.

CHAIRMAN PIERCE: Doug.

MR. DOUGLAS E. GROUT: A couple comments, one we've sort of been jumping back and forth between southern New England and Gulf of Maine. Just to one of David's points about directed fishery. My question is just as a comment more, is to keep in

mind that there are allocations for winter flounder in southern New England. But are they high enough that they could actually be targeting?

I mean we have low allocations up in the Gulf of Maine for certain fisheries like yellowtail that you can't target the fish. You have to use it as a bycatch in trying to target other things. Just we need to be careful about saying that everybody is targeting them. There may be, I don't know enough about the southern New England fishery. That is my comment on southern New England.

As far as Gulf of Maine, we had with this assessment our current ACL is about 55 percent, about what it was in the previous year. More importantly the state subcomponent is also now 55 percent of it. Given that the commercial landings are roughly about 85 percent of that. I think we've got to look at taking some action a little bit quicker.

If we waited until May to take action, and by the time those new measures got in place to try and constrain the state water subcomponent, it could be too late to stay at least within it. Obviously if you go over in the state water subcomponent, you are going to be affecting the federal permitted vessels are the ones that are going to be paying the accountability measures not the state waters. With that being said, I'm going to throw up a motion to see if we might be able to lower the trip limit on the commercial fishery. My motion is to move to reduce the trip limit on Gulf of Maine state waters commercial vessels down to 250 pounds per day.

CHAIRMAN PIERCE: Is there a second to the motion? Is there a second to the motion? Okay I see none. There is no motion on the floor. I'll make a suggestion in the interest of time. This suggestion is this. In looking at the southern New England/Mid-Atlantic stock in the state waters subcomponent that has been established for 2018; I see that it's 73 metric

tons, 2016 total catch in state waters was 64.7 metric tons.

Now that would be again only for 2016, not '17. That represents commercial catch as well as recreational take; and therein lies the disconnect that David Borden has highlighted; that unlike Gulf of Maine cod where there is a recreational fishery allocation and a commercial, for winter flounder there is none.

Really management of winter flounder was initiated in a major way by ASMFC, by this Board, the Council eventually caught up, and now we're dealing with subcomponents and the need to try to live within those subcomponents. I'm suggesting to you that the data before us now suggest no action is needed for southern New England/Mid-Atlantic, beyond for example what was just offered up by Bob Ballou regarding a weekly limit.

For the Gulf of Maine cod stock however, that is a slightly different situation. As already highlighted by Doug that we have established for us by federal action, a state water subcomponent of 67 metric tons, and the catch in 2016, recreational as well as commercial was about 101 metric tons.

If we take no action someone is going to assume, perhaps the New England Council that in 2018, May 1 through April, 2019, we will that is the states and the Gulf of Maine, will take far more than the state waters subcomponent and that will have implications for federal waters fishermen.

I'll ask; does the Board believe that there is a need for us to take action at this time relative to that state waters subcomponent? If not, do we need to have some Technical Committee work to assist us in that regard; to determine what we might want to consider for the next fishing year, recognizing it's February, and the next meeting is in May? Ritchie.

MR. G. RITCHIE WHITE: If you could educate me, Mr. Chair. If we take no action and if we overharvest our component, what are the consequences?

CHAIRMAN PIERCE: I believe that well I'll turn to Doug to assist me in this regard or anybody else on the Council. But I believe that the federal waters fishermen, the federally permitted fishermen would pay the price for whatever is caught in state waters that brings the total take above the ACL. That would likely result in, just somewhat of an assumption, further restrictions on federally permitted fishermen in the coming fishing year. I think I've got that right. Paul.

MR. NITSCHKE: That is true if on the Fed side they catch their allocation. Now for the Gulf of Maine stock they've been way under. It's not clear. I mean if you look at the catch performance plot you can see that they haven't come anywhere close to the total ABC.

CHAIRMAN PIERCE: Thank you Paul, very important point. If catch by federally permitted fishermen is falling far short of what's been established for them as allowable catch. Then if the states go over the Gulf of Maine's subcomponent, there really is no consequence for the federally permitted fishermen, because we're not going over the ACL. All right, Colleen.

MS. COLLEEN GIANNINI: I think Pat alluded earlier that availability was an issue. Do we have an idea what the 2017 landings are estimated to be? Is it likely that they're lower than 2016 or the same?

CHAIRMAN PIERCE: We don't have the information in hand. My assumption is that the catch continues to be low because of lack of resource, lack of availability, and also other measures that are in place that are restraining the federal waters fishermen. David Borden.

MR. BORDEN: A question and then maybe a comment. Could somebody describe to me the process followed to assign a state waters subcomponent; either for the Gulf of Maine or southern New England. Paul.

MR. NITSCHKE: Could I show a slide actually? It's second to last in that presentation. When the PDT tries to estimate the state subcomponent every time we do the specs, now we don't know what the regulations coming out of this body is. But we try to get an estimate of what that catch is.

What we've been doing is used a three-year average of the estimated-state-subcomponent catch, use that three-year average and try to match that three-year average. Here in the middle column you can see the total catch estimate for the state subcomponent over time from 2010 to 2016. That is both the commercial and recreational state subcomponent.

On the left are the ABCs and the PDT basically tries to develop a percentage of that ABC needed to match the latest three-year average of that catch. Now for southern New England that three-year average was used in the specs. For the Gulf of Maine the PDT estimated the 22 percent that was not used. The Council used the 15 percent that was in the past, and that's why there is a reduction now in that state subcomponent.

MR. BORDEN: David, if I might. I guess a comment if I understand the mathematics here, and I'll use a hypothetical. If the states in the southern New England/Mid-Atlantic area reduce their catch to 0, then the consequence would be that the federal waters component would increase. Is that correct?

MR. NITSCHKE: Yes, whatever we put in the specs, it has a direct effect on the federal component; so whatever you put in for the subcomponent.

MR. BORDEN: It goes back to the question that Ritchie White asked. What is the consequence? I think there are consequences here. If the states continue to reduce their state waters catch, two points, this was not a negotiated sharing arrangement between the Commission and the federal partners on this, and it probably should have been. The second point is that if the consequence is that the more restrictive the states are, then that liberalizes the catches for federal

water. It's inconsistent with the logic of we want to rebuild the stock.

CHAIRMAN PIERCE: For those Board members who are new to these sorts of discussions, winter flounder is a unique species, in terms of it being the only groundfish species that ASMFC manages cooperatively with the New England Fishery Management Council. All other groundfish species are the New England Council's purview.

Obviously the Mid-Atlantic Council has some input to those discussions; and individual states are supposed to. On cod for example, on haddock for example, with the Commonwealth of Massachusetts being the excellent example, being obliged to seriously restrain catches in state waters by non-federal permit holders, so that we can keep to the subcomponents that have been set aside for expected state waters catch.

If we don't live with those subcomponents and the consequences is some additional restriction on federally permitted fishermen. But in this particular case again, it's this unique situation for winter flounder. Now I think this might be the first meeting where the Board is obliged to consider some response. At this point in time I don't see anyone willing to make a motion that would reflect a change in the approach or the change in the measures for 2018; I might be mistaken. Pat.

MR. KELIHER: You're not mistaken as it pertains to anybody making a motion. But I think David brings up an excellent point. In a couple days at the Policy Board meeting, we're going to be discussing the issues about herring as it relates to additional conversations with the Council, and discussing our mutual goals for that species.

I think in having a conversation over lunch with Mr. Stockwell, I think he brought up an excellent point. Those conversations aren't going to be just about herring; I think they're

going to need to expand to other species, such as winter flounder, so we can talk about what our mutual goals are.

I think that's going to be every bit as important during those conversations as the herring conversations will be. I think moving in that direction, maintaining status quo right now, having those conversations with the Council, determining what the mutual goals are, and then coming back at a subsequent meeting to try to figure out where we're going to go from here will be very important.

CHAIRMAN PIERCE: Pat has offered up a suggested path forward. If there are no Board members motivated to make a motion regarding a change in the winter flounder specifications for 2018 at this meeting, we'll go on to another issue, which is the issue that was raised by Bob Ballou.

Bob, I'll paraphrase a bit. I believe you are asking the Board to request that the Technical Committee examine, analyze the suggestion that the state of Rhode Island has offered up regarding aggregate limits for winter flounder as opposed to individual trip limits. Am I properly characterizing?

MR. BALLOU: That's correct. Thank you, Mr. Chairman.

CHAIRMAN PIERCE: If there is no objection from the Board, the memo prepared by Bob and his staff will be forwarded to the Technical Committee for its review; in order for us to better assess whether or not that strategy will maybe be conservation neutral of catch neutral. In other words, see how that particular approach would relate to our keeping to the state waters, well actually it wouldn't be state waters subcomponent. This would be just a suggestion to move it to the Technical Committee for an evaluation as to whether the aggregate weekly limit is warranted.

MR. BALLOU: That's fair enough. I think certainly relating it back to the state water subcomponent is relevant as well. I'm not sure that's the primary charge; but to your point I think it's a combination of the two things that you just mentioned.

CHAIRMAN PIERCE: I agree that it is relevant; especially since it's possible that a weekly aggregate limit could result in more directed fishing on southern New England/Mid-Atlantic winter flounder. If indeed it does provide for more directed fishing, we need to know to what extent might that occur and what are the implications of that increased directed fishing, specific for the state waters subcomponents. Colleen, did you have your hand up? Eric.

MR. ERIC REID: The point of an aggregate is to avoid discards. That is the key to success there. Instead of trying to go out and catch 50 pounds every day, seven days a week, and discard whatever you catch over 50 pounds. If you have an aggregate and maybe it is 250 pounds instead of 350.

You would actually reduce discards, which is the whole benefit to an aggregate program. That is what we're hoping the TC is going to tell us. It may increase effort on an individual basis per day, but I think overall it will decrease discards, which is to our advantage. That's the point of it.

CHAIRMAN PIERCE: Thank you Eric for that clarification that's quite true; impact on discarding. That will be another element of the Technical Committee review. Emerson.

MR. EMERSON C. HASBROUCK: Yes I support Rhode Island's proposal for an aggregate trip limit. I just want to make it clear in our request to the Technical Committee that they analyze this relative to any and all states, you know for the southern New England/Mid-Atlantic winter flounder stock, and not just Rhode Island, because there may be other states that would like to participate in this as well.

CHAIRMAN PIERCE: Yes Emerson, my assumption would be that that is the case, not just for Rhode Island, anyone who wanted to take advantage of it. It might be a heavy lift for the Technical Committee, but it's certainly worth their examining it. All right with that

said, and if there are no other suggestions, comments, motions specific for the specification process for 2018, and I don't believe there are. Megan.

MS. WARE: Just to clarify so I understand how the Board is intending to move forward for Gulf of Maine. What I'm hearing is maintain status quo and talk about mutual goals with the New England Council. Is the intent to have that conversation between now and May, so that in May this Board reconvenes to reconsider specifications, or the Board is comfortable at this point maintaining current specifications for 2018?

CHAIRMAN PIERCE: My assumption is that at this point in time we are comfortable with specifications for 2018, and work needs to be done between ASMFC leadership and the New England Council to begin those discussions, hopefully before May so that we'll be in a far better position in May as a Board to possibly take some action.

REVIEW OF FISHERY MANAGEMENT PLAN REVIEW AND STATE COMPLIANCE REPORTS

CHAIRMAN PIERCE: All right, let's go on to the next agenda item; which is the Fishery Management Plan Review. Once again we turn to Megan for her overview.

MS. WARE: I will keep this brief, because we have discussed a lot of components of this today. Jess, I'm just going to skip three slides to the status of the fishery. I think we've discussed status of the stock enough today. But in terms of status of the fishery, commercial and recreational landings have declined since the 1980s; specifically commercial landings peaked at around 40.3 million pounds in 1981, but have generally declined throughout the '90s and 2000s.

In 2016 commercial landings were 2.6 million pounds; with the majority of this about 80 percent taken in Massachusetts. Recreational harvest in 2016 was just over 100,000 pounds, and represents a significant decrease from the 16.4 million pounds that were caught in 1982. Between 2013 and 2016,

Massachusetts, New Jersey and New York comprised the majority of the recreational landings.

I'm going to again skip this slide here. I think we've talked about the commercial measures and recreational measures already. One of the plan's specific requirements for winter flounder is that under Amendment 1 the states of Massachusetts, Rhode Island and New York are required to continue annual surveys of juvenile recruitment to develop an annual juvenile abundance index for winter flounder.

In addition, the states of Massachusetts, Rhode Island, Connecticut, and New Jersey are required to conduct annual surveys to develop an index of spawning stock biomass, and all of these states have continued to meet this monitoring requirement. All states are in compliance with the FMP and addenda. There were no requests for de minimis status this year, so the PRT is recommending that the Board approve the 2017 FMP review and state compliance reports.

CHAIRMAN PIERCE: Are there any questions of Megan? **Okay if not do I hear a motion to accept the 2018 FMP Review and state compliance reports? Motion made by Doug Grout, is there a second; second by Colleen Giannini, thank you, Colleen. Alright, so we have a motion on the floor. Is there any objection to the motion? I see none; therefore the motion is approved.**

ADVISORY PANEL MEMBERSHIP

CHAIRMAN PIERCE: Next would be the AP Committee membership. As noted in the briefing material, we have an AP Committee membership that has not been updated recently, and as noted by staff attendance on conference calls has been low. We've been asked as individual states to review our membership and to nominate a new AP member; if the position is vacant.

I assume for some states the position is vacant, or if the current member is not actively participating and that person has been contacted and questions have been asked why not. Are you still willing to be an AP Committee member? Are any states in the position now to offer up some names for membership on the Advisory Panel? If not, please get those names to Megan as soon as possible. I know Massachusetts has to do that. We haven't yet come up with someone to fill the vacancy. We'll be submitting a name to Megan fairly soon, or names to Megan fairly soon. Please, if you haven't already done so, take a look at that membership. In light of the discussions we've already had, and in light of the fact that there may be some change in the way in which this Board interacts with the New England Council, and how we have cooperative and collaborative management with the Council.

It will be even more important to have our Advisory Panel fully staffed; so please do that. I guess I jumped ahead a little bit, Megan. You were going to give a presentation on this or no, good.

ADJOURNMENT

CHAIRMAN PIERCE: Is there any other business to bring before the Board? All right, I see none; motion to adjourn. Motion made by Ray Kane, and a second by Pat Keliher. With no objection the meeting is adjourned.

(Whereupon the meeting adjourned at 3:37 o'clock p.m. on February 6, 2018)