SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE WEBINAR

SAFMC Headquarters
North Charleston, SC

September 9, 2015

SUMMARY MINUTES

SSC Committee

Dr. Luiz Barbieri, Chair
Dr. Will Smith
Dr. Steve Cadrin
Dr. Scott Crosson
Dr. Tracy Yandle
Anne Lange
Dr. Brian Irwin
Dr. Alexi Sharov
Dr. Marcel Reichert, Vice-Chair
Dr. Eric Johnson
Dr. Amy Schueller
Dr. Churchill Grimes
Dr. John Boreman
Dr. George Sedberry
Dr. Fred Serchuk
Dr. Jeff Buckel

Council Members:

Ben Hartig, Chair
Erika Burgess
Dr. Michelle Duval, Vice-Chair
Dr. Roy Crabtree

Council Staff:

Bob Mahood
John Carmichael
Dr. Mike Errigo
Dr. Brian Cheuvront
Myra Brouwer
Gregg Waugh
Chip Collier
Julia Byrd
Dr. Julie Neer
Mike Collins

Participants:

Patrick Caton
Kevin Craig
Charles Foreman

Other Attendees Attached

The Scientific & Statistical Committee of the South Atlantic Fishery Management Council convened in a Webinar at 1:00 o'clock p.m. on September 9, 2015, and was called to order by Chairman Luiz Barbieri.

DR. BARBIERI: Good afternoon, everybody. My name is Luiz Barbieri; and as the Chair of the South Atlantic Fishery Management Council's SSC, I am calling to order the September 9, 2015, SSC meeting that is being conducted via webinar. You can see the agenda there on the screen and we are going through introductions right now. John, I don't know if we need a roll call or if the record of attendees as seen on the attendees' list is enough for us to get on the record the members in attendance.

MR. CARMICHAEL: Yes, Luiz, that is enough; we can go with that; and everyone can see that.

DR. BARBIERI: Thank you for that and we need to approve our agenda; which is very short and on point. You can see that we're going to go over our usual items of introduction and then public comment. We're going to review and discuss the blueline tilefish projections and then see if we have any other business and close the agenda afterwards.

Any comments, questions or concerns from the committee regarding the agenda as presented? Hearing none; the agenda of today's meeting is approved by acclamation. The next item on our agenda is approval of our meeting minutes from the last meeting. Those minutes were sent to you as part of our briefing book package.

Hopefully, you have had a chance to review those minutes and provide us with any comments, suggestions or modifications. Any comments, suggestions, or modifications from the committee? Seeing none; the minutes of the previous SSC meeting are approved by acclamation. At this point on the agenda, we will open up the floor for the first opportunity for public comments. Are there any members of the public who would like to address the committee at this time?

MR. CARMICHAEL: I have Patrick Caton.

MR. CATON: I charter fish. I don't have a commercial permit, so I just charter fish for tilefish, or I used to before you shut it down. I just got in here so I didn't hear the part before it. I just don't understand what happened. You're using the same science supposedly as the Mid-Atlantic and they can keep seven per person. We're down to like we can't even keep one a boat anymore; which one a boat is pretty much worthless.

I just feel like that is pretty unwarranted and you probably should relook at your stuff; because I feel like you're pretty wrong. I've had my boat ten years; and you gave me the first five years to find some spots, and every year it seems like its gotten better fishing the same spots. Last year I fished close to 90 trips and well over half of those trips I caught a limit of tilefish; and they were within a quarter mile of the same spot. It just seems like it has been getting better and better and you say it's getting worse. I guess that is what I had to say. That's it.

DR. BARBIERI: Okay, Patrick, thank you for your comments. Any other comments from members of the public?

MR. CARMICHAEL: Yes, we have Charles Foreman. Go ahead, Charles.

MR. FOREMAN: I would just like to say that I agree with Rick Caton. Areas up north of Hatteras have been getting better and better every year. Places are exactly like he said; it's just growing. We fish one place one year; go back the next year; that place is a half a mile bigger and bigger and bigger every single year.

I'm just shocked at what is going on with tilefish up in our area. It is mind boggling that we can't keep at least three if not five per person. They've taken over the areas where we used to catch sea bass. We don't catch as many sea bass in those areas as we used to because there are so many tile. It doesn't make sense. I'm very interested to see what you guys have to say about it.

DR. BARBIERI: John, any other members of the public to address the committee?

MR. CARMICHAEL: No other hands at this time, Luiz.

DR. BARBIERI: With that, we close our first opportunity for public comment and we move on to Agenda Item Number 3; Blueline Tilefish Stock Projections and Recommendations. The action item is for us to review the projections and provide catch level recommendations. John is already putting up our overview document, which outlines all the attachments and documents that we're going to be referencing during this meeting.

You saw a presentation that came up from John Carmichael and Mike Errigo that was going to give us an introduction to the topics. But before we get there, I would like to bring your attention – John, if we can scroll down a bit – in terms of the action items for the committee. I know those are a bit longer than usual, but I want to read them on the record so we have a very clear, unequivocal presentation of the items that we are going to have to address at this meeting:

Review the most recent blueline tilefish stock projections of August 2015; determine whether the information provided addresses the SSC's request. You remember that we presented a request to the council for these projections. Identify uncertainties in the projections and discuss their impact on projection results and fishing level recommendations and management.

Determine whether projection assumptions (e.g. recruitment, fishing mortality, interim year landings) are met and comment on the consequences of this determination for fishing level recommendations and management. Then determine whether available projections represent the best scientific information available and whether they are adequate to support fishing level recommendations for both the current and future years. Provide guidance for revised projections, if necessary.

Then, finally – and this is primarily the main action items for us to address today – is to provide revised fishing level recommendations, including ABC and OFLs, for 2016 and 2017.

A note there that the next assessment of blueline tilefish is scheduled for review by the SSC in April 2017. This is the reason why at this point we are providing the council with catch level recommendations for just the next couple of years. Please keep those action items in mind as we

review the presentation that Mike is going to go through, review the documents and have our discussion. John, with that I will pass it on back to you and Mike for that presentation.

MR. CARMICHAEL: Mike, I will make you the presenter.

DR. ERRIGO: Can everyone see that presentation and can you hear me? I am just going to briefly go over how we got here, what is going on in the different projections, the products that we got from the Science Center and what we have to make decisions on. Hopefully, it will be very brief and then you guys can start your discussion. If you have any questions, feel free to ask.

Background: The SSC reviewed the blueline tilefish projections during the webinar in June. There were several different levels of interim landings from those projections. The discussion then focused on several main topics for those projections. One was the northward shift in the fishery that happened late in the assessment into areas that were previously unexploited or underexploited; and then the continuation of that trend after the terminal year of the assessment; also that there is fairly little information from those northern areas.

Another point that was talked about quite a bit was the extremely high projected F values since after the terminal year of the assessment. As a reminder of all the different projection scenarios that were presented to the SSC at that meeting, here is a table of what they all looked like. We have the original December 2013 projections; and then all the interim landings and the associated F values; several different revised projections in April; and then the final set of revised projections from May 15 that have the interpolated value for the 2013 recreational landings for tilefish, which were giving us all a bit of a problem.

You can see that especially in the earlier projections, some of the F values were quite high; so 2014 we had an F value of over 3 for the December projections and then April 28 we had F values over 2; so there were some higher F values that were of some concern. This is just another way of graphically showing what some of the projections looked like by year.

Each of the bars is a different projection scenario from December 2013 all the way through to the projections that were finally used to set the ABC for 2015. Then the orange bar was the ACL set for that particular year and the black bar were the landings that came in for that year. That is 2013, ’14, and ’15; and then that black bar is the most current estimate that we have of landings for 2015.

You will see the orange bar matches up with that right most like greenish-bluish bar, because that was the projection that was ultimately settled on for the 2015 ABC. At the June webinar the SSC concluded that the projections were properly prepared and using the acceptable methodologies.

However, there was a lot of uncertainty regarding the sustained high level of catches after the terminal year of the assessment and the high projected F value, and also the spatial shift in effort in the fishery to the northern parts of the range for blueline. The SSC determined that the available projections were not best scientific information available and requested updated information from the Science Center.

This just shows the spatial shift in the fishery. The blue line shows landings north of Hatteras and the red line shows landings south of Hatteras. You'll see in 2006 there is a huge shift in the amount of landings and also the amount of effort going on north of Hatteras. A lot of that is from the longline portion of the fishery, but also the handline and the recreational fishery also increased north of Hatteras.

DR. BOREMAN: Mike; this is John Boreman. Before we get any further on this, I had this question last time and I was surprised at the answer, but I'm going to ask it again. When you say north of Hatteras, how far north of Hatteras are you talking about?

DR. ERRIGO: Well, these landings I just took everything that went from Cape Hatteras all the way north, all the way until the landings stopped; but the bulk of these landings are still occurring in the North Carolina Region. I do have a graph that breaks it out by jurisdiction and there is still quite a small amount of landings, especially during the earlier time period, occurring in the Mid-Atlantic and northeast. Most of this is still happening in the South Atlantic Jurisdiction.

DR. ERRIGO: I can show you that a little bit later. Let me just get through part of this here, and I'll show you that the landings that are occurring in the Mid-Atlantic and northeast are still pretty low, but they ramp up towards the very, very end. The SSC requested a couple of different things from the Science Center.

One was using the same assumptions for the projections before, but simply updates the landings for the interim years and rerun those projections. Those were the status quo or base run projections with updated landings.

The other was using alternative assumptions for recruitment; so with an increased recruitment scenario, updated landings for the interim years; and this was to simulate the effects of two different alternative reasons why we might have these high levels of landings but perhaps explaining changing the F value; so perhaps the F values from the original projection values weren't quite correct.

That is because maybe there are higher recruitment values occurring in the stock that the model wasn't accounting for or the other possible reason is that there is higher local abundance in northern areas that the model was unable to account for when the fishery moved up into those areas. The assumption of higher recruitment in the first several years of the projection was to try to account for those two alternatives.

Some of the projection results that we got from the Center; first of all, the Science Center felt that there was not sufficient scientific support for the projection scenario that had the alternative levels of recruitment. That is I believe in your Attachment 4 in your briefing book – the scenario one, which I believe was your status quo –

DR. BOREMAN: Mike, I know I've looked at it and I didn't really understand Attachment 4 all that well. Can you briefly summarize what was in Attachment 4 that justified there was not scientific support for running the projections with alternative levels of R; or is there anyone there from the Center?

DR. ERRIGO: Yes, if there is anyone here from the Center, it would probably be best if they explained it, because I read it just the same as you did; if anyone is available.

DR. BARBIERI: I think we have Kevin Craig?

MR. CARMICHAEL: Kevin, could you help with that? I just un-muted you.

DR. ERRIGO: Are we having maybe some technical difficulties?

DR. BARBIERI: Sometimes if you are not connected by phone, you really have a hard time speaking. I don't think it works just as well when you're talking through the computer.

MR. CARMICHAEL: Let's see if we can get up with Kevin. He is on here; he's just not getting any sound yet. It shows he's on there. Maybe we'll have to try and call or e-mail and get their attention over there.

DR. BARBIERI: John Boreman, do you mind if we continue for now?

DR. BOREMAN: I don't mind at all; if I can get an answer to that.

DR. BARBIERI: Mike, if you can continue the presentation, in the meantime John Carmichael is going to try to call Kevin and see if we can get Kevin on the phone to respond to John Boreman's question.

DR. ERRIGO: I'll just keep going on here with what I have. The runs from the Scenario 1 are the status quo scenarios with the updated values interim landings. The initial results were sent on August 11th, which is your Attachment 5; and four more sets were sent August 18th. They were rerun at the request of the Regional Office and the Fisheries Management Council asking for further detail on the stock.

Several sets of refined landings were done, so there were four more sets of refined landings, different sets of them. That was the August 18th, Attachment Number 8 in your briefing book for that one. They were rerun again. This graph here basically brackets all of the runs that were done. The August 11th projections had some of the lower landings levels and highest projected levels of landings.

Then there was one scenario that the council had put forth for landings had some of the highest interim landing levels and had some of the lowest projected landings; but the differences are not terribly huge. Just so you guys can see for reference, the green line is yield at 75 percent MSY, the purple line is the 2015 ABC value that is currently in place. It is around 36,000 pounds.

Those results had projected F values higher than were seen throughout the assessment time period. Also, the Science Center put forth the Handline CPUE Index from SEDAR 32, and they extended that index through to 2014 in lieu of the second projection scenarios with the increased recruitment. They were put forth as a suggestion for comparing biomass from this observed data here to the biomass seen in the projections.

It was constructed in the same manner as it was in SEDAR 32 from Cape Hatteras to Cape Canaveral. That is a standardized index, which is why when you see it compared to the original index all of the points are different, because it was standardized all the way back in time. Well, the points kind of jiggled a little bit when they get at those three extra years.

One other thing is that the biomass and productivity of blueline north of Hatteras still remains largely unknown at this point. Here is a graphic of the handline index. The blue is what was in SEDAR 32. The green is the updated; it has 2012, '13, and '14 data points. Because it is standardized, that is why it doesn't look the same across the whole time period.

This graphic is a handline index and an associated biomass trend; so up through 2010, that is the biomass from SEDAR 32. 2012 and 2014 is some type of projected biomass. I unfortunately do not have any of the specifics on how it was constructed. Hopefully if we can get Kevin or someone from the Center back on the line, they can tell us exactly how the biomass trend was constructed. I'm not exactly clear on how it was made.

It had something to do with the handline index, because it is increasing so it is not just from the projections; which all show decreasing biomass trends after the terminal year of the assessment. However, though, this handline index and this associated biomass index after the terminal year of the assessment show increases rather than the increases seen in the projections. That is what we have.

DR. SERCHUK: Mike, may I ask a question? This is Fred Serchuk. First of all, I am a new member here, so I hope my question is not naïve; and if it is, you let me know please. Your presentation focuses on fishing level but the document that we have, Document 8, also provides estimates of spawning stock biomass, which is used for the status determination or at least it was in the assessment that was done.

I am concerned and I guess I'll ask others on the committee whether they are concerned that all the projections indicate spawning stock biomass, at least projected spawning stock biomass, falling to very low levels; in some cases very much less than the minimum stock size threshold. You don't mention it and you will not mention it in your PowerPoint presentation, but I'm wondering is there any reason why we should ignore that?

DR. ERRIGO: At the June webinar a lot of the projections were discussed and were determined to not be best science available due to some kind of discontinuation between the assessment and the projections. The projections are projecting trends that don't seem to follow from what's going on in the fishery; unfortunately. There are issues in the assessment that are not being addressed properly; perhaps in the projections that the SSC felt were problems.

Those projections are one possible scenario of what is going on in the fishery, but the SSC put forth several other possible scenarios of what might be happening in the fishery at the last webinar. One was that there is actually a much higher level of recruitment than is being assumed in the projections so that the biomass is much higher than is what is being projected.

The other is that the fishery has shifted from where it was traditionally to much more northern latitudes in very recent years and may be exploiting a biomass that was unexploited previously

and is much higher than what was seen in the assessment, which was not picked up in the assessment because it was supposed to be close to the terminal year.

Therefore, the biomass that the fishery is currently exploiting is much higher now than it was, than it is being assumed in the current projections. The base biomass going into the projections is much higher than what the projections are assuming.

DR. SERCHUK: Thank you, Mike. I have a number of questions, but I will let you finish your presentation.

DR. ERRIGO: Okay, it is almost done. I am just going to go over some of the options that the SSC has in front of it currently. For fishing level recommendations, there are two options we have so far and any others if anyone has any suggestions. One is to use one of these sets of updated P-star projections, which are using the same methodologies and assumptions that were used in the projections we saw previously.

These were used for the previous ABC recommendation. They also retain all the issues identified by the SSC at the previous meeting, at the June 3rd webinar. The second possibility is to use equilibrium yield at 75 percent Fmsy from the SEDAR 32 assessment, which is 224,100 pounds whole weight, which is also a significant reduction from the current exploitation.

The SSC concluded that the earlier projections were not best scientific information available, but the only available projections are using those same methods and assumptions from those previous projections; but updated landings. According to SEDAR 32, blueline were not overfished but overfishing was occurring.

Using an exploitation rate below Fmsy has been used in the past when forward projections were not available. This might be a viable option. The third is any other suggestions or approaches that the SSC thinks might be viable at this time. That is all the current information that we have in front of us. If there are any other questions that I can help answer, I would be more than happy to.

DR. BARBIERI: Mike, thank you for the presentation. Before we go more specifically into our action items, are there any specific questions for Mike? Fred, I know you have some more.

DR. ERRIGO: This one was addressing John Boreman's question about the breakdown of landings by jurisdiction. Blue is all the landings of tilefish from Virginia north and red is the landings in the South Atlantic through 2014. You can see most of the exploitation is happening in the South Atlantic Jurisdiction, which is the North Carolina/Virginia Border and south until 2014, when there is a significant increase – a big jump in the landings in the Mid-Atlantic and a big drop in the landings in the South Atlantic, and that is due to regulations.

The distance point for those who do not know is due to a closure for all deepwater fishing. Anything deeper than 240 feet was not allowed to retain anything caught deeper than 240 feet, including snowy grouper and blueline tilefish. That is why there is a big dip in 2011.

DR. BOREMAN: Mike, the assessment from the SARC was up to what year, 2011?

DR. ERRIGO: Yes; the SEDAR assessment went to – the terminal year was 2011. We saw this increase here, then a decrease and then this huge drop, and that was the end of the assessment. After that the landings went back up again. Then 2014 goes down here like this in the South Atlantic because of regulations; but if you add these points together for total removal, that is actually up here.

DR. BARBIERI: Okay, thank you, Mike. Before we move on, John, do we have an ability to touch base and hear from Kevin Craig?

MR. CARMICHAEL: Kevin is trying. He is having some technical difficulties; but we have had some communication. Hopefully, we're making progress. Now let me try un-muting him and see if we're coming through now.

MR. CRAIG: I think I missed most of what's been said; sorry about that. We've been having some IT issues or I've been having some IT issues.

MR. CARMICHAEL: John Boreman, I think you had a question, if you want to refresh Kevin.

DR. BOREMAN: Mike, can you scroll back to your slide that talked about the projections that weren't done? Yes, that first bullet, Kevin, that is what I'm asking. Could you go into a little more depth about what the Science Center felt was not sufficient in terms of scientific support for the projections that we requested using alternate levels of R?

MR. CRAIG: Yes; I think there are a number of issues that came up. One was we didn't have any empirical evidence of high recruitment since the assessment. We had done a pretty extensive investigation of the age compositions and the length compositions subsequent to the assessment; and we didn't see an indication of a year class or something that would provide some sort of empirical basis for the hypothesis that there has been some change in recruitment or at least some very recent high recruitment.

DR. BOREMAN: Let me interrupt there. This data you looked at to look for this empirical evidence; were any of that data north of Cape Hatteras?

MR. CRAIG: I think in age composition – well, there were two separate analyses done. One was done by myself and one was done by Mike. I think the age comps, I will have to check. This was a year and a half ago that this was done; but I do not believe we had age compositions from the north. I will let Mike speak to the landings I think he did from the northern regions.

DR. ERRIGO: The landing comp data that I had was all TIP data, which came – it's all South Atlantic data. I think I tried to get everything. I did get stuff from north of Hatteras. I presented that at the June 3rd webinar. From what I found, there were small individual in the catches. In fact, especially in the recreational catch there is kind of a big bump of really small tilefish.

I thought that there was evidence or perhaps there might be evidence, but it was hard to tell because size and age; aging tilefish in their size/age relationship had a lot of uncertainty in it. But according to the sizes, the length comp, it looks like there were small individuals in the catch. Unfortunately, most of the landings north of Hatteras were longline. Longlines tend to target larger individuals; but there were smaller individuals in the longline catch than were seen

in the past several years. But it is hard to tell if that was a recruitment event or not, because longlines, like I said, are designed to target larger individuals.

MR. CRAIG: If I could just add a little something there; small fish don't necessarily indicate high recruitment. I think what we would want to see is that those small fish progressed as a cohort through the subsequent years. I think from what I remember that was not the case. There were blips of small fish; and if I remember correctly, it was in the recreational fishery. I believe in South Carolina where there was sort of some small fish that showed up; but they didn't show any progression through the next two or three years that would indicate a recruitment event or a cohort or something of that nature.

DR. BOREMAN: What if all those small fish swam north and swam out of the area that you were using to look for them?

MR. CRAIG: From everything that we know about blueline, they are very, sort of sedentary, bottom-associated, perhaps structure-associated species. There is certainly movement that is mediated by the pelagic life stage, the larvae and so forth. I'm not saying it's not possible. They are not really considered a highly migratory species at the sizes that are being harvested by the fishery.

DR. BOREMAN: I hope you can see where I'm coming from here. One of our hypotheses is that the production or productivity of blueline north of Hatteras weren't significant than was assumed in the assessment.

MR. CRAIG: Yes; and I think that is a possibility. I think the reality is we don't have information on that productivity; we just don't have information on it. It could be high, it could be low. It is hard to come up with some sort of empirical support for that other than sustained or landings that have been high for the last two or three years; three or four years.

Before we got too off track, I think just to get back to your question, John, there were a couple other things that came up; because there was not really one issue that led to that decision. Certainly, the lack of any kind of strong empirical support for the recruitment hypothesis, even though we have looked for it, was an issue.

If you look at the high recruitments in the assessment, there has been this notion that they are associated with high landings. Therefore, if landings have remained high, we should assume it's because there is high recruitment. But if you look at the assessment, the recruitments – and these occurred in the mid-2000s – are actually associated with the handline index.

The handline index goes up in the mid-2000s, and then it declines toward the end of the assessment. Even if you were to accept that correlation might be a reasonable thing to base some higher recruitment on; the handline index seemed to decline. You can kind of see it here if you look at 2006, '07, '08 and '09. You've got this hump in the handline index, and so that seemed to be more associated with the recruitments than the landings.

DR. BARBIERI: But, Kevin, may I interrupt you for a second. This is something several of us have been thinking about. In terms of that perceived increase from 2012 onward, if this is the standardized index of abundance, why is this not really indicative of at least a plausible scenario;

maybe not necessary a likely scenario but a plausible scenario that recruitment or the productivity of stock may be higher than we had previously estimated?

MR. CRAIG: Well, it is a fishery-dependent index, for one. I would be hesitant to infer something about productivity from a single fishery-dependent index. There are certainly other things that drive changes in that index in addition to recruitment. Catchability could certainly be an issue here and just increases in effort.

There certainly at least anecdotal evidence that we've had increased effort directed towards blueline; and perhaps because of going from a mostly bycatch fishery to a directed fishery an increase in catchability. At the time I think it didn't seem reasonable to focus strictly on the recruitment hypothesis for which we had very little empirical support and not also consider these other alternative hypotheses, which seemed to at least have some anecdotal support.

I can just add one other thing about that is the recruitment was – and this was another thing that was a focus of a lot of internal discussions. If I remember correctly, it was taking the five or the ten highest recruitment years out of the 35 years of the assessment and then assuming that for the ten – I think at the time it was requesting a ten- or twelve-year projection; so it seemed like that level of change in recruitment is more akin to sort of a regime shift almost.

It is basically saying that there has been some fundamental change in the productivity that is sustainable for the next decade. I guess that is within the realm of possibility. It is just without some sort of empirical information to hang our hat on, it seemed like it didn't really seem –

DR. ERRIGO: Just to be clear; the recruitment level that was proposed was the recruitment level that fed the increase in spawning stock biomass that was associated with the increased landings at the end of the assessment time period. And then to carry that through; it was approximated by the SSC that perhaps was the shift in the fishery to the north where it might be more productive; so not exactly a regime shift; but simply a shift in where the information was coming from.

MR. CRAIG: Just to sort of respond maybe I can ask a question. Where is the indication of the shift north in the fishery? Again, this has been a year and a half since we addressed this at the last SSC meeting; but my recollection there was that a lot of the recent landings were occurring north of Hatteras but just over the North Carolina/Virginia Line.

That seemed to be the pattern that began in the early to mid-2000s. There is a shift north of Hatteras, but it seemed to be a fairly localized shift. When we looked at where the fish appeared to be caught versus where they appeared to be landed, most of the catch appeared to be occurring northern North Carolina, southern Virginia and then perhaps being landed further north because of regulations or something of that nature. Do we know that there is large amounts of catch, not landings but catch occurring north or Hatteras; and if so, is it really north or are we talking about just over a state border or jurisdictional border?

DR. BARBIERI: I'll just jump in, because otherwise I'm afraid we're going to be caught in the same discussion that we had at the last webinar meeting about the nature of those landings. I understand there are some disagreements about how to interpret those landings between area caught and area landed.

If I may jump on John Boreman's earlier question, I think one of the things I think bothered some of us regarding the response from the Center was the fact that basically four scenarios may not necessarily be likely but plausible; that the Center decided to eliminate those and actually just provide us with a different set of assumptions than what was requested.

Even if we were to try and assign likelihoods of those scenarios to discuss with the council, we don't have those products in front of us. Much like, for example, when we get sensitivity runs for assessments and we can from that identify what is the range of scenarios here that are plausible and then try to attach some likelihood of those being the best explanation for what we are trying to explain.

MR. CRAIG: I think there is an unlimited number of things that are possible and that is part of the issue, right? You can't run every potential possible scenario. We were kind of looking for some empirical evidence that would be a justification for that. For example, if we had done the analysis of the age compositions or the length compositions and we saw some indication of a large cohort of fish moving through or something like that; that would provide some sort of empirical grounding for simulating increased recruitment in the projections.

Without that you are basically throwing darts in the dark. I could argue, well, why not just do John Boreman's scenario, which is assumed that the fish caught in the south are migrating to the north? That is equally plausible. I don't think it is a matter of what is plausible versus not plausible.

It is a matter of finding something that we have some kind of empirical basis for or something that would kind of justify that. I think that was sort of the gist of the discussions is that even though we had looked, we couldn't really find a lot of empirical basis for doing that. I would also note that the request was changing the recruitments in the assessment I believe as well, which is another – because I think the request was for the last three years of the assessment and then the 9 or 10 or 12 years of a projection period, which would mean rerunning the assessment model and it would actually involve recomputing benchmarks.

DR. CADRIN: Luiz, this is Steve Cadrin. Can I jump in? I think we are closer together on this than we realize. It is just really what to do in this difficult situation. The SSC had agreed that the SEDAR 32 projections weren't best scientific information available, and I think primarily because the assumed catches for 2012-2015 badly needed to be updated, because the realized catches weren't similar to what was assumed.

I think that is a pretty easy decision. The difficult decision is what to do with this more recent productivity that has been realized through the increased catches and increased CPUEs. I think it is fortunate that in the SEDAR 32 assessment we had an episode of productivity from 2006 to '10 which was mostly coming from the northern area deepwater fishery; the newly developed deepwater fisheries.

There is actually pretty extensive discussion of that. At least there was at the review workshop and it is documented in the report that the reviewers were concerned that the CPUE indexes, which were trimmed so that they did not include the northern areas or the southern areas, were not fully indexing that recent productivity. The model's interpretation of that increased catch

from 2006 to '10 was to have – it interpreted that increased catch as coming from increased recruitment from 2000 to 2005.

With the Beaufort Assessment Model, there is essentially a recruitment deviation. For most of the series the recruitments are right about the average and then they go above average during that period to explain that increased catch. Now if we were to update the assessment – and I realize it is not on the table – the increased catch since 2011 and the increased CPUE would be expected to produce increased estimates of recruitment.

If the model interprets this recent increased productivity the way it did the previous one, then we would get increased estimates of recruitment. Now I think based on that line of reasoning, the recruitments assumed in the projections are likely to be less than what an updated model would estimate for those same recruitments. I don't see any problem with considering the projections to have recruitments less than what we think they have been since then.

But I think Kevin is exactly right, what numbers do we use? Do we use the recruitments during that short period of 2000- 2005? We really end up – we're throwing darts as Kevin said. I think we may need to have some qualitative interpretation of the projections that have been provided to us; that they likely underestimate recruitment – at least that is my interpretation of it – but how to revise the projections so that they have increased recruitment, I agree with Kevin, I don't see an objective approach to doing that. Thanks.

DR. BARBIERI: Steve, I see your point, but the point is my interpretation of what the SSC requested – and I have the memo right in front of me – was really so we would be presented with a whole number of scenarios. Then we can move onto interpreting those scenarios and attaching them to some of the other outputs that we had from the assessment; landings and all of that.

And correct me if I'm wrong, Kevin, but my interpretation of what happened is that basically the Center felt the SSC was not able to make that judgment, so they limited the number of outputs to present to the committee and exercise that judgment possibility.

MR. CRAIG: I don't think that was it at all. I think it was more what I had mentioned before is we would want to have some empirical basis for it. Frankly, it involved rerunning the assessment model, which would re-estimate the benchmarks and redoing the projections. I think there might have been a manpower issue.

The decision wasn't made – I didn't make that decision or even this Lab didn't make that decision. The memo or the response that you have under Amendment 4 is the first time I've seen that. I can't really speak to those larger issues. I am just recanting sort of the scientific discussions surrounding that.

DR. BARBIERI: I'm looking just at the last sentence in the second paragraph of the July 10th memo that says, "In our view exploration of various recruitment scenarios could mislead us into believing one possibility without considering others."

DR. SERCHUK: Luiz, if I may, you can't look at Attachment 4 without looking at the text in Attachment 5. Many of the questions that John Boreman raised are included in the paragraph in

Attachment 5 under additional projection scenarios and discussion. Much of what Kevin said, okay, he's just reiterated what was written here.

I mean it should not be a surprise to us just to again reiterate some of the things that the enhanced recruitment was not supported by analyses of age composition, length composition. There was no – at least from the Center's point of view, no empirical evidence for a continued high recruitment. Increases in catchability and increased fishing effort are plausible for the continued high landings of blueline.

DR. BARBIERI: Fred, I understand all of that; I am not surprised. I'm just thinking about National Standard Guidelines; the role of the SSC established in statute and how the agency has codified that role through National Standard Guidelines.

DR. SERCHUK: I understand that.

DR. BARBIERI: It is unequivocal that when we look at National Standard Guidelines 2 that the SSC represents the review body to provide catch advice to the council. Kevin, I don't need to be not collegial about this. I know this is not your fault. I'm just saying it is very difficult for us to provide catch advice to the council when we are not presented with the outputs.

We have been there several times and there are justifications that are presented that I think put on some of those issues about manpower and time constraints. All of those are understandable. It is that what I have seen is that there was a judgment call on what they felt the Scientific and Statistical Committee to the council would be able to interpret in providing catch advice.

DR. SERCHUK: We certainly don't have to accept the Center's viewpoint; you are entirely right. I just see so much uncertainty, okay, in whether their recruitment has increased or decreased or where fishing is taking place, whether the CPUE reflects underlying abundance or just shifts in localized abundance by the fishery.

There is no external way to forecast recruitment other than through a mechanism of landings. I am concerned. There is so much uncertainty; and when we discuss possible scenarios, each one of them is going to be shrouded with uncertainty; and more uncertainty than existed I think when the assessment was done. I see a lot of moving targets here.

DR. BARBIERI: Right, but let me refer the committee to our list of action items; review the most recent blueline tilefish stock projections of August 2015; and sub-item bullet one; determine whether the information provided addresses the SSC's request. I was trying to address that specifically.

MR. CARMICHAEL: Luiz, I think we do need to consider getting on track with what we know and what is uncertainty and how we can respond to this request and what the committee might be able to do in terms of fishing level recommendations.

DR. CADRIN: Can I maybe throw up a compromise alternative – and thank you for reminding me of the SSC's decision to have a range of projections. If there is a desire to have in that set of projections a higher or increased recruitment scenario, I think that Figure 313 of the SEDAR 32 document shows that since 2000 there has been increased recruitment. Now I think that

increased recruitment perception is trying to explain the recent productivity in the northern part of the area; but again that is exactly what we're trying to reconcile with this.

Perhaps one reasonable recruitment assumption would be that recruitment has increased and so we make a recruitment assumption that it has been the same as it has been since 2000 rather than the entire period. I don't think that is an unusual recruitment sensitivity analysis. If the SSC has decided that's one of the scenarios they would like, I think that is non-arbitrary. Recruitment has certainly or it appears to have increased since 2000.

DR. BARBIERI: Right, Steve, to me that goes back into the issue that John Boreman was asking in the beginning about the scientific justification or the justification presented by not presenting us with the outputs requested; that there was no scientific basis. Here we have recruitment estimates that came out of an assessment that was reviewed by the CIE and was considered the best scientific information available by the SSC. We can see the recruitment outputs right there.

DR. SERCHUK: I'm looking at 313, and there were high recruitments in the early 2000s and then they declined afterwards. The question then is if we accept Steve's recommendation; do we take an average; what do we do here? It looks like it peaked and then it went back to baseline.

DR. BARBIERI: Yes, Fred, we asked for three scenarios or three alternatives in our memo to the Center. The first scenario reflects an approach recommended by the SSC is to base the alternative recruitment assumption on the levels estimated by the assessment model as necessary to support increased landings observed since around 2006.

The recommendation to accommodate this approach is to base recruitment on five- and ten-year averages of recruitment estimated by the assessment for 2007 and earlier. Right there we would have some recruitment scenarios coming from the assessment estimates from 2007 and earlier that they have two time blocks that are being considered, five and ten years.

That may involve an average level of high and not so high. Those values should be used as fixed recruitment levels for 2008 and later. That is one scenario. The other scenario requested towards the last recruitment strategy to provide projection outputs based on the 75th percentile of recruitment estimate in the uncertainty evaluation of the base updated projections. Those were explicitly requested. To me it would be very difficult for us to say that some of those or all of those do not have a scientific basis based on the outputs here that we see from this assessment.

I am trying to reconcile the assessment has been reviewed and despite the high level of uncertainty it was accepted as the best scientific information available with the fact that we are not using the assessment to inform us on recruitment values that we can use as alternative scenarios; you know, states of nature that the committee can evaluate as potential issues; perhaps with somewhat higher likelihood of representing truly higher than others. But I think that given the high level of uncertainty with this assessment, considering that only one plausible scenario is likely, it is not intelligible to me.

MR. CARMICHAEL: Luiz, I just do want to point out that we're an hour and fifteen minutes in and sometimes we start to lose people in the afternoon when it gets close, so it might be good if we can reach some conclusions on this and start to think about can we get some fishing

recommendations out of what we have; we come back with some alternative request, I don't know.

In addition to the specific recruitments, I think there was a clause in there that said if the Science Center had some other idea for dealing with this problem, then please explore it. I thought that Steve pointed out the intent behind this was noted in the review workshop. It wasn't because anyone said, oh, wow, there has got to be a great big year class out there. It was try to repeat what the model had clearly been doing in its terminal years. You see in that picture where recruits dropped to MSY; well, that is completely expected.

This is an age at selectivity 4, 5, 6 years old. There are no juvenile indices. There is no information to tell the model any recruitment other than MSY in those last couple years. Don't forget there was a deepwater closure in 2012 right at the terminal year. There were a number of things that make it really difficult for this model to have a lot of information on what recruitment was doing.

I think that is why you get some of that sort of weird pattern. I kind of believe like Steve said, if you update this model, you might very well see another five years of that high productivity continuing to repeat this pattern as that model tries to rectify the productivity it's observing with the easiest thing it can manipulate, which is recruitment.

DR. BARBIERI: John, thank you for bringing me back on track and let me step off my soapbox and then go to our second major bullet, which is for us to provide revised fishing level recommendations including ABC and OFL for 2016 and '17. Those will be interim until we can get a new assessment for blueline tilefish.

Mike's presentation had a summary of potential actions that the committee could take; and one was we can follow the catch level recommendations that we presented in this revised set of projections or we can go with yield at equilibrium Foy since the assessment was reviewed and accepted. We can go with something else that the committee sees as possible for providing catch level recommendations. With that, I will open for a committee discussion.

DR. BUCKEL: I would like to get some discussion. In Attachment 4 the memo from Bonnie, before the Handline Catch-Per-Unit Effort Index had been updated, she gave a couple different scenarios. If it was staying flat or increasing, then the committee might want to consider using average landings in recent years; or if the Handline Catch-Per-Unit Effort Index is going down, then we would go back to the benchmark assessment. Since that Handline Catch-Per-Unit Effort Index is showing an increased pattern in catch per effort, I think it is worth considering that as a third option, looking at average landings as an ABC.

DR. BARBIERI: Okay, thank you, Jeff. Now we have basically three options there.

DR. SERCHUK: Can I ask another question, Luiz? Again, this is the reason why I asked Mike early on about biomass. It looks like in some of the projections – and I realize that we didn't get them all and that we're constrained by that at least for the time being; and I know that this was discussed in June, most of the projections that we do have, and maybe because they don't have recruitment in it, suggest that SSB has been declining recently. I understand that it's a policy of

maybe it's the SSC, and maybe it's the council; not to use the projected SSBs in any way to do stock status determination.

But I am a little bit concerned that for the stock status, in terms of whether the stock is in an overfished condition or not, reverts back to a terminal year of 2011 to make our determination. Perhaps it is because we have no more recent information on that. One of the possibilities that we could use is the fishing mortalities that come out of the projections; and presumably this may be one reason why we're saying that it might be experiencing overfishing.

Again, I am not familiar with how the SSC has discussed this in the past; but I think there is a disparity in my mind between how we might look at changes to the ABC based on what we believe is happening to fishing mortality without any regard to what might be happening in terms of spawning stock biomass. Perhaps I just need some clarification on that.

DR. BARBIERI: I think that we have different sets of projections that are based on some different types of data; and our report from the June webinar was basically that we did not consider those projections as the best scientific information available. My interpretation of that – and I will open up to the committee – is that what we're reviewing this time is really this new set of projections that were just recently provided, the ones that Mike reviewed more explicitly during his presentation.

Actually, Fred, to your point, before we can proceed in making any decisions on whether we're going to use those or not, we need to determine whether those available projections represent the best scientific information available and whether they're adequate to support fishing level recommendations for both the current and future years.

DR. SERCHUK: I agree.

DR. BARBIERI: Let me open up that issue for discussion by the committee; and it hinges I think very directly on what Fred has brought up on the scenarios of spawning stock biomass of the stock that are being realized through this new set of projections.

DR. SHAROV: Luiz, can I chime in? This is Alexi Sharov, your new member. If I could I would like to follow on some notes from Fred and Steve Cadrin. I have sort of similar concerns as Fred and many others, but he is talking about the projected levels of SSB. Generally we have the principal conflict information, and that is the projected SSB decline as opposed to significance in landings' levels.

One of the options we have discussed is the potential increase in recruitment. The other source of uncertainty that is significant, as you can see from the assessment report is a substantial retrospective pattern, in particular a significant underestimation of the SSB. Obviously, we have sustained high landings in recent years. Either we have a high fishing mortality or we have a higher population size than the assessment, so that is another source of uncertainty.

It doesn't seem to be possible to me and maybe others will disagree that we were likely to generate a high level of F in recent years unless there is a proof of significant increase of effort. I think it is also an issue of whether the area from which the catch was generated is equivalent to the area of the stock that we're trying to estimate. All-in-all, it seems to me that the level of

uncertainty in this projection is too high for them to be useful. My opinion would be to revert to the alternative methods of assessing ABC.

DR. BARBIERI: Great, Alexi; welcome to the committee and thank you for your comments. I agree with them wholeheartedly, and let me see if I can hear some additional comments from additional SSC members. Is anybody basically for or against – would anybody disagree; let me put it that way, it might be easier – would anybody disagree with this summary of discussion points that Alexi just put forth and thinking about them in light of what Fred and then Steve Cadrin discussed earlier; that the level of uncertainty in these current projections is too high for them to be considered adequate for providing catch advice.

Okay, hearing no comments, my assumption here is that the committee is in agreement with your point, Alexi, in that we will not use these projections for catch level recommendations. That leaves us now with two options. There are several others, but to limit the discussion to the initial points that were presented by Mike, we have the yield at equilibrium Foy that is 75 percent of Fmsy. Then we have some average landings based, as Jeff suggested and I also agree could be another option to be adopted by the committee. Comments, please.

MR. CARMICHAEL: Marcel has his hand up. Marcel, can you speak?

DR. REICHERT: I'm having some audio issues on my end. If I can't seem to speak, I'll type questions in to John. That seemed to be reasonable given what we just discussed and also it seems like perhaps that may be irrelevant. It seems like perhaps the assumed biomass or higher biomass is perhaps the more likely scenario, and I'll leave it at that now.

DR. BARBIERI: Would anybody else like to make some comments? We're trying to get to the point where we can provide some revised fishing level recommendations including ABC and OFL for the years 2016 and '17 on blueline tilefish.

DR. REICHERT: Then the question becomes what are we going to use as the recommendation? Mike provided two with other suggested approaches; we discussed one. I think Jeff proposed one. Correct me if I'm wrong, but if we follow Jeff's thinking that would mean that perhaps we cannot use the stock assessment; that the SSC has concluded that the stock assessment itself was at that time and still is the best available science. Maybe Jeff can address that a little bit further. Otherwise, we have the Option Number 2 on the table I believe; correct, Luiz?

DR. BARBIERI: Correct, which will be the yield at equilibrium Foy. Jeff, do you want to discuss a little bit the average landings' issue?

DR. BUCKEL: The issue that I had with the projections were all the issues that have already been brought up, which come back to issues with the assessment. It just seemed like either Option 1 and 2 were outputs from the assessment and trying to move away from that; this was one option that was in the memo from Bonnie and I thought would be a good interim measure. It's just got to be in place for a couple of years before we get the next assessment; so just trying to get away from all the potential issues with the assessment.

DR. BARBIERI: Here are two options. We have an assessment that has a terminal year of 2011. It is already a bit behind in terms of data availability inclusiveness; but at the same time if

we're going to be using average landings and we reject the assessment, we're going to have to make some decisions about how to do that.

To me this is one of the main problems here is that how do we use those average landings, what time period we consider and what methodology are we going to default to applying our ORCS process or are we going to go to something else? I personally tend to agree with Marcel that since we accepted the assessment as best scientific information available, going with the equilibrium yield at Foy would be the most logical next step if we are still in Tier 1 of our assessment – I mean our ABC Control Rule.

DR. REICHERT: Luiz, if I may, I think that would be your logical step. If we follow our ABC Control Rule, I believe we would fall back to the ORCS approach if we decide that indeed we cannot use the stock assessment for management advice. I would like some other input. That is only if we make that decision. I'm not entirely there yet to reject the assessment as is, but I would like some input from others.

DR. CADRIN: Luiz, could I follow up on that? Marcel, I think that is a logical process; that if we think there is so much uncertainty in the SEDAR method projections; that we do have a fall back; but which ORCS approach? Do we just use one of the scalar catch approaches, the bottom tier? Do we try to develop a DC-AC, depletion-based stock reduction? All those will take some attention and some degree of review; so I guess I'm just looking for clarification on what you're suggesting.

DR. REICHERT: I completely agree, Steve, and I feel that may take a little more time and consideration than we have during this webinar. I hate to postpone making a decision, but I just wanted to throw that out there that if we follow our ABC Control Rule, that is where we end up, and I don't think we've considered that.

We have talked about blueline tilefish in previous ORCS discussions, but we haven't considered that at this point. I hate to come to the conclusion that we have to postpone management advice further. But, anyway, that would be the logical consequence if we decide that is our next step. But maybe we can discuss whether or not Option 2 is something that we can justify scientifically and are comfortable with as an SSC given the fact that this is an interim solution until the next stock assessment becomes available.

DR. BARBIERI: Correct. I would really appreciate if other committee members – we have heard from a few already some very good points that are helping us think through and discuss.

MR. CARMICHAEL: Churchill raised his hand there briefly. Did you have a comment, Churchill?

DR. ERRIGO: Just as a reminder if the SSC wants to go down the road of saying that the assessment is no longer valid to be used as management advice; I think that may have to be done at the October meeting, because it was not noticed in the Federal Register that this meeting would be discussing that issue.

DR. BARBIERI: I see.

DR. SERCHUK: I have a couple of questions, if I may, Luiz. If we truly believe that we have no indications of any of the indicators since the end of the assessment or since the terminal year that the stock has changed or they may be conflicting signals so we can't tease them out; but I think we have a responsibility if we are not going to accept the assessment projections, let alone the assessment, to point out either that the indicators are uncertain or they are conflicting or some other way so that we can't use something like an index to guide our recommendation.

That is one issue. The other issue is that if we believe that the assessment is no longer appropriate for determining the status of the stock, if we go that route, and it doesn't represent best available science, then we have to consider that the SSC should make a determination that the status of the stock is unknown. I raised those two points because I think they're both ones that are important.

DR. BARBIERI: Thank you, Fred. I agree with your points that those are relevant issues that will have to be weighed as we make the determination.

MR. CARMICHAEL: Churchill, you should be un-muted if you're trying to get through. I'm not getting anywhere here, Luiz. Anybody else, just pop your hand up.

DR. SHAROV: John, can I say a couple of words following Fred? I certainly agree with Fred. Obviously it is not possible to have an update as frequently as we would like; but I think it would be really useful if we had the summary of the available indicators about the status of the stock. Currently we have landings, which suggest some possibly of the higher sustainability of the stock, but not necessarily.

It could be indeed a higher fishing mortality; but we have high CPUEs for two indices, high CPUEs, which still would indicate the stock is declining, we have high landings; it would be nice if we could have like a graph with the trend of the average age or average size of the fish or maybe C is estimated using Hoenig's method, which could be relatively easily done.

It wouldn't make it to the full assessment, but it would give us much more confidence in making our decisions. That would have been helpful. The comment on the use of the assessment; we are not rejecting the assessment, per se. We are only saying that the assessment stopped way too far and there is too much of uncertainty to use the projections.

But the assessment results, certainly the reference points and the MSY estimates could be useful I think, because they represent the historical evaluation of the historical performance of the stock. Therefore, the SSB estimates, the Fmsy, the MSY for the stock and SSBmsy could be useful; therefore, the option of 0.75 of MSY is on the table and it is alive and possibly one of the candidates.

DR. BARBIERI: I agree with your points. Some concerns that I have is that we're trying to not delay any further these catch level recommendations. What we have in front of us right now, this information should be enough for us to make a conclusion or at least make some judgments here and proceed with a recommendation.

We have looked at the size and age compositions over time. They are not very clear. The information is so fragmentary. I understand your point, but I don't think that this is something

that we can address in the short term. With that, at this point I am supportive of your suggestion to go with the yield at 75 percent of Fmsy, the equilibrium value for that and have those as interim landing levels for the council. To wrap this up, could anybody on the committee – I mean that question is still open; so would anybody be at this point more supportive of an average landings' catch level recommendation?

DR. BOREMAN: I am kind of leaning towards Alexi's point of view here, going with the 75 percent of Fmsy based on what has happened historically with the stock with the historical information; but I am also weighing that against Fred's warnings about what could be happening with spawning stock biomass and so on. I think when we do deliver a catch recommendation to the council, we should have those warning labels plastered all over it, right?

DR. REICHERT: I completely agree with John. I think we've done that in the past; but I think those uncertainties – and Luiz, John and I can work on some language; but I completely agree that we need to be careful that we lay out the caveats in our recommendations.

DR. SERCHUK: Just a clarification; the 75 percent of Fmsy is applied to what?

DR. BARBIERI: In terms of the biomass estimate, you mean?

DR. SERCHUK: How do you go from 0.75 Fmsy to an ABC?

DR. BARBIERI: Right, and this is the issue of equilibrium, of using the equilibrium value, yes, that came out of the assessment, as some recommended long term that is not taking into account the short-term dynamics of the stock, so it would be that way if I understand correctly.

MR. CARMICHAEL: Yes, the value that is in that sheet is the equilibrium estimate.

DR. SHAROV: It is essentially 75 percent of MSY, not Fmsy. It is 75 percent of MSY at the population being equilibrium where you obviously apply Fmsy, because I have the same question.

MR. CARMICHAEL: It is based on the F rate of 75 percent Fmsy and the equilibrium biomass.

DR. SHAROV: The way Fred was thinking and I was thinking in your document when you apply Fmsy or a percent of Fmsy to a different size of the stock, you are going to get a very different level of the catch. You are saying with your equilibrium level you are essentially saying I am taking 75 percent of the maximum sustainable yield of the population in equilibrium.

MR. CARMICHAEL: Sort of, roughly 75 percent. It doesn't track exactly, but it is probably a little more than 75 percent.

DR. ERRIGO: It is the biomass at when the population is at MSY, you, know, able to support MSY to Bmsy and then 75 percent of Fmsy when the population is at that biomass; the equilibrium, and that is the yield.

DR. SHAROV: That is a 680,000; 6 to 80 times Bmsy?

DR. BARBIERI: No; the value of that equilibrium will be 224,000 pounds, Fred.

DR. ERRIGO: Yes; but even if you go biomass at MSY, I think it is 80 metric tons.

DR. SERCHUK: You're talking about the biomass. I want to get the difference between the stock biomass and the SSB biomass. I don't want to get them confused; they're two different things.

DR. BARBIERI: Right, we just have to go through the assessment document and get that. In respect to Fred of what those values actually are, let's make sure that we provide –

DR. SERCHUK: I'm looking at Table 5.1 that is on the assessment, Page 22, which is all of the criteria.

DR. REICHERT: That is the stock assessment report 5.1, you said?

DR. SERCHUK: That's right, yes, SEDAR 32.

DR. REICHERT: Okay, I was looking at Table 312, but, okay, thanks.

DR. SERCHUK: May I ask another recommendation? One of the things that I'm concerned about – no, I have no qualms with – it is the point estimates of the handline index have gone up recently. I don't see any error bars around that; and I am concerned that there is some uncertainty around these CPUE indices; and if it is possible to depict that uncertainty, that would be helpful to characterize whether there is a trend or not. I am referring actually to Figure 1 in Document A-5.

DR. BARBIERI: The Figure A-D you mean – I mean Figure 1?

DR. SERCHUK: Figure A shows a definite increase in the updated handline index; okay, but those are point estimates. I'm just wondering the bottom one refers to biomass, okay, but the top one should have some error bars around them if they are not just total catch over total effort.

MR. CARMICHAEL: Kevin, can you speak to that at all if you are still here with us? I don't see Kevin Craig on here anymore; so, yes –

DR. SERCHUK: But you understand my point.

MR. CARMICHAEL: Absolutely, but if you look at the one below, you can see the errors are pretty great.

DR. SERCHUK: But it says the error bars are pertaining also to projection biomass and not the CPUE. I have a hard time understanding. I am looking for another axis, quite frankly.

MR. CARMICHAEL: This was the table we were talking about earlier with the stuff from the assessment.

DR. SERCHUK: I was just wondering what the 75 percent of Fmsy is; is it Bmsy for the total stock because the catch comes from the total stock?

MR. CARMICHAEL: Catch comes from the total stock and selectivities, yes.

DR. BARBIERI: Right there the value is 0.226.

MR. CARMICHAEL: Yes, 0.226 comes right after the selectivity and the estimated abundance in age at that equilibrium point.

DR. BARBIERI: Yes, at equilibrium point. I agree with you, Fred.

DR. REICHERT: The table you are pulling up; what PDF page is that, please?

MR. CARMICHAEL: If you're looking at the Chart 32 for the version I have, this is PDF Page 25.

DR. SERCHUK: The equilibrium biomass at MSY is 680 tons; is that correct, 0.5?

MR. CARMICHAEL: Yes.

DR. BARBIERI: John and Mike, so that is where we got the value, the 224,000 pounds, right, for what that yield would be?

MR. CARMICHAEL: Yes, that is correct. I think that was something that was done perhaps an output that came later, because the council uses that in doing the amendment. As you can see, as is the case, it is often pretty close to MSY, because there is MSY at 226. You can see there is a lot of biomass in there, which shows there is a lot of biomass left out there; 226,000 pounds out of a biomass of 680 metric tons.

DR. ERRIGO: Luiz, this is Mike. This is in regards to Fred Serchuk's question. I pulled up the original handline index and the CVs ranged from 0.09 to 0.17 for the CVs. It is in the data workshop report, the last section of the index section, and it shows the error bars on the index, and it also has the actual CVs listed out in comparison –

DR. REICHERT: What page you said, Mike?

DR. ERRIGO: It is Page 137. I have it on PDF Page 176. That's the table, and a couple pages after that is a figure with error bars, so the CVs are not terribly huge.

DR. BARBIERI: We have a suggestion here that we use the equilibrium yield here at Foy or 75 percent at Fmsy as the catch level recommendation for blueline tilefish, and that would equal 224,000 pounds. Are there any additional comments from the committee regarding this decision?

Of course, we're going to be distributing a draft report to all of you; it's going to be brief. If you can help us flesh out some of these comments, the issue about uncertainty; of course, all of that would be very helpful.

DR. REICHERT: It may be helpful to remind the SSC members that the council meeting is next week and are you supposed to present a report on this webinar next week?

DR. BARBIERI: I'm pretty sure I am.

DR. REICHERT: Okay, I just want to remind everyone that doesn't give it a lot of time.

DR. BARBIERI: Right. I am looking at the overview document; and unless there are committee members who disagree, I think that we have addressed all of our action items. There are some there in the middle that talks more about the assumptions in the projections and the uncertainties in the projections and all of those we have discussed in this meeting; but we need to actually expand on that when we start putting together our report.

As far as this agenda item is concerned, I believe that we have completed Agenda Item Number 3. Since this is our main order of business for this meeting, let me open up briefly for any additional comments from the committee.

DR. IRWIN: Luiz, this is Brian. I have a question or a request for a point of clarification. I'm new, so apologies if this has been discussed. When we were talking about the alternative and the 0.75 Fmsy, just for clarity are you thinking of a target level of catch that is based on 75 percent of MSY so that catch would be constant over years; or is it a target mortality rate that would be a target and that would be constant across years?

DR. BARBIERI: Well, in this case, Brian, we are actually talking about the yield at that equilibrium level. It would be constant catch over those two years until we get an updated assessment. Okay, any other questions or comments from the committee? Hearing none; we completed Agenda Item Number 3 and that will move us into other business.

Are there any other business items that the committee members would like to bring up for discussion? Hearing none; we have our second opportunity for public comment. In the interest of time and the fact that we are getting close to coming to the conclusion of the meeting, let me ask the members of the public that if you have any comments for the committee; that you make a comment fairly brief. With that, we'll open the floor for comments from members of the public.

MR. CARMICHAEL: We have our liaison council member, Dr. Michelle Duval.

DR. DUVAL: I just actually had a quick question for Dr. Boreman. John, I was just curious in the last time you all had a webinar meeting in June to discuss this topic the committee had received. Regarding the summary from the Mid-Atlantic SSC's Blueline Tilefish Workgroup, I was just curious if those conclusions had been reviewed and approved by the full Mid-Atlantic SSC.

DR. BOREMAN: That report was reviewed by the Mid-Atlantic SSC. That report went directly to the council.

DR. DUVAL: It was reviewed by the full SSC?

DR. BOREMAN: It was but we didn't have a formal review. That was a while ago. I'm trying to remember exactly what the process was, but we set up a working group and the working group reported back to the SSC and we had a discussion. There wasn't a motion made to approve or to disapprove the report, and it was included in our report to the council.

MR. CARMICHAEL: No other hands at this time.

DR. BARBIERI: Okay, thank you, John, and this has to conclude our public comments.

MR. CARMICHAEL: I may have one here. Ben, were you trying to raise your hand?

MR. HARTIG: Yes, I'll keep it short. I want to thank you all for a great discussion on a very difficult subject. I think you've come to at least a two-year interim decision that is amenable to the council. I think it is a great move forward. I will have a lot more to say when Luiz gives his report about how we should probably do this in the future, but thank you.

MR. CARMICHAEL: Okay, no further hands.

DR. BARBIERI: Thank you, folks. I just want to point out that we're going to move up to report and recommendations review quickly before we adjourn. This report is due to the council by 9:00 a.m. on Tuesday, September 16; and that, of course, is in short order. I am going to be distributing a draft of the report for your suggestions.

If we can't have all of this really completely tied with a bow and presented to the council, at least I want to have a PowerPoint on my presentation to the council on September 15th for the SSC update to the Snapper Grouper Committee. Please take a look at the draft report that we're going to be distributing shortly and provide us any comments that you might have. John Carmichael, unless you have any other issues here, I think we are ready to adjourn.

MR. CARMICHAEL: Yes, sir, I concur. I have no further issues today.

DR. BARBIERI: Let me take this opportunity to thank the committee for the great attendance today and great discussion points. I am very, very pleased, by the way. Congrats to our new committee members. It has been great to have you on board, and I look forward to seeing all the members at the October meeting. Meeting adjourned.

(Whereupon. the webinar meeting was adjourned at 3:10 o'clock p.m., September 9, 2015.)

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