

Summary of Assessment Oversight Panel Meeting

June 20, 2019

Woods Hole, Massachusetts

The NRCC Assessment Oversight Panel (AOP) met to review the operational stock assessment plans for 14 stocks/species. The stock assessments for these stocks/species will be peer reviewed during a meeting from September 9-13, 2019.

The AOP consisted of:

Gary Nelson, Ph.D., Atlantic States Marine Fisheries Commission, Massachusetts Division of Marine Fisheries

Jason McNamee, Ph.D., Chair NEFMC Scientific and Statistical Committee, RI Division of Environmental Management

Paul Rago, Ph.D., member of the MAMFC Scientific and Statistical Committee, NOAA Fisheries (retired)

Russell W. Brown, Ph.D., Northeast Fisheries Science Center, Woods Hole

Meeting Participants:

The participants in Woods Hole included: Chris Tholke, Liz Brooks, Greg DeCelles, Brian Linton, Jim Weinberg, George Maynard, Eric Hesse, Chris McGuire, Bill Duffy, Gary Shepherd, Steve Cadrin, Mike Simpkins, Mark Terceiro, Tara Trinko, Toni Chute, Anna Birkenbach, Brian Stock, Pierce McDonnell, Charles Perretti, Larry Alade, Lisa Hendrickson, Susan Wigley, Paul Nitschke, Tim Miller, Mike Palmer, Arielle Baker, Katherine Sosebee, Liz Sullivan, Emily Keiley, Jamie Cournane, and Michele Traver.

Remote participants via webinar included: Alex Hansell, Andrew Jones, Tony Wood, Chuck Adams, Daniel Caless, Karen Greene, Nichole Rossi, Rebecca Peters, William Gerencer, Melissa Sanderson, Steve Cadrin, Page Valentine, Peter Shelley, Tom Nies, Chris Kellogg, Robin Frede, Jessica Blaylock, Brett Alger, Alicia Miller, KB McArdle, Libby Etrie, Rich Bell, Raymond Kane, Jui-Han Chang, Gavin Fay, Mike Armstrong, and George Maynard

Meeting Details:

This meeting included implementation of the newly approved NRCC stock assessment guidance document. Three background documents were provided to the Panel: (1) an updated prospectus for each stock; (2) an overview summary all the salient data and model information for each stock; and (3) the NRCC Guidance memo on the Operational Assessments. The NRCC guidance memo was recognized as particularly relevant during the deliberations of the AOP. Prior to the meeting, each assessment lead prepared a plan for their assessments. The reports

were consistent across species and reflected both the past assessment and initial investigations.

The meeting was held in the Meigs Room of the Marine Biological Laboratory's Swope Center in Woods Hole. The meeting began at 9:00 am. Approximately 31 people participated in Woods Hole and another 27 individuals participated via teleconference and Webinar.

The lead scientist for each stock gave a presentation on the data to be used, model specifications, evaluation of model performance, the process for updating the biological reference points, the basis for catch projections, and an alternate assessment approach if their analytic assessment was rejected by the peer review panel. In some cases, stocks were already being assessed using an "index-based" or "empirical" approach.

Common Issues for Multiple Species:

Population Dynamics staff reported on four common issues associated with multiple stock assessments: treatment of misreported catch, incorporation of survey catchability estimates from Northeast Trawl Advisory Panel conducted experiments, revised recreational catch estimates from MRIP, and incorporation of data collected using electronic monitoring.

Chris Legault presented background information on misreported catch, noting that while estimates are available by species, more detailed information such as statistical or stock area, market category and dates are not currently available. This precludes "correction" of misreported catch in stock assessments for the 2019 assessments. To accurately incorporate misreported catch, trip level detailed information would need to be corrected in catch databases. The timeline for correcting catch databases is unknown at this time.

Tim Miller, a member of the Northeast Trawl Advisory Panel, presented information on comparison studies between survey trawls equipped with "chain sweeps" (assumed 100% efficiency) and rock hopper sweeps (gear used on NEFSC multispecies bottom trawl surveys). These experiments produced estimates of relative efficiency for targeted flatfish and other demersal species. Estimated sweep efficiencies were used to scale up survey abundance indices to swept area abundance and biomass estimates. For stocks where there were sufficient data, improved relative efficiency estimates can be incorporated into current stock assessments and compared with assessment results.

Mark Terceiro presented information on incorporation of revised recreational catch information generated by the Marine Recreational Information Program (MRIP). The assessments in this review that will be affected by revised recreational catch estimates include cod, haddock and pollock. The Georges Bank winter flounder stock has an insignificant recreational catch and the two coastal stocks of winter flounder will not be assessed in the management track until 2020.

Paul Nitschke presented information on the prospects of incorporating Electronic Monitoring (EM) landings and discard data into the 2019 management track assessments. Three Exempted

Fishing Permits (EFPs) were issued to permit electronic monitoring beginning in calendar year quarter 4 of 2017 and extending through 2018. While these permits were issued for quota monitoring purposes, there are data being collected that may have value in terms of informing stock assessments.

Considerable discussion occurred relative to incorporation of EM data including informative comments by both EM project principal investigators and participating industry members. These stakeholders advocated for the use of high quality EM data, which was viewed as being more accurate than self-reported VTR data.

The proportion of the catch in 2017 and 2018 that was monitored through EM is generally less than 5% for stocks being assessed in 2019. For these assessments, lead assessment biologists plan to remove total retention EM data from their analysis due to known differences in selectivity that could bias results in terms of characterizing the overall fishery. While the AOP recognized the potential value of EM collected data for future assessments, it also supported the caution expressed by stock assessment leads in terms of more fully developing the data structures and databases required to incorporate these data.

Clarification of Management Track Review Levels:

One of the key decisions of the AOP was to determine the level of peer review for each of the planned stock assessments. For each assessment, the AOP considered assessment plans including planned changes to determine the most appropriate level of peer review. The “Description of New England and Mid-Atlantic Region Stock Assessment Process” document outlines three levels of peer review for management track assessments as follows.

“A Level 1 management track assessment is essentially a simple update to the previously approved assessment with new data. This level of assessment update will be delivered directly from the NEFSC to the appropriate Council or Commission technical body (e.g., SSC) and will not undergo peer review beyond that conducted by those technical bodies.”

“A Level 2 management track assessment can involve a little more flexibility for deviations from the previously accepted assessment, but that flexibility is limited to allow for efficient peer review of multiple assessments in one peer review meeting, similar to what previously had been carried out for the groundfish operational assessments for the NEFMC. Level 2 assessments will undergo a formal, but expedited (1-2 hour maximum), peer review by a small panel of SSC members from the relevant Council(s), along with additional external experts if desired, before submission to the appropriate Council or Commission body.”

“A Level 3 management track assessment will permit more extensive changes than a level 2 assessment and therefore requires a more extensive peer review (one-half to a one full day). The flexibility in level 3 provides an opportunity to make progress within the management track toward the Next Generation Assessments envisioned in the Stock Assessment Improvement Plan, by including more detailed spatial, temporal, environmental and species interactions within existing model frameworks.”

Major Recommendations for Review of Individual Stocks:

In general, the AOP approved the plans presented, but recommended several revisions to the review levels as summarized below:

Stock	Lead Assessor	Major Recommendations
American Plaice	Larry Alade	Level 2 – Expedited Review Plan B – absolute biomass estimates based on catchability, derive exploitation rates.
GOM Haddock	Charles Perretti	Level 2 – Expedited Review Plan B – Loess Smoothing
GB Haddock	Liz Brooks	Level 2 – Expedited Review Plan B – Loess Smoothing
CC/GOM Yellowtail Flounder	Larry Alade	Level 2 – Expedited Review Plan B – absolute biomass estimates based on catchability, derive exploitation rates.
SNE/MA Yellowtail Flounder	Larry Alade	Level 2 – Expedited Review Plan B – absolute biomass estimates based on catchability, derive exploitation rates.
GB Cod	Chris Legault	Level 1 – Direct Delivery Current Assessment is a Plan B. Alternate approach, recommend status quo management.
GOM Cod	Charles Perretti	Level 3 – Enhanced Review Plan B – Loess Smoothing
Northern Windowpane Flounder	Toni Chute	Level 2 – Expedited Review
Southern Windowpane Flounder	Toni Chute	Level 1 – Direct Delivery
Witch Flounder	Susan Wigley	Level 1 – Direct Delivery Current Assessment is a Plan B. Alternate approach, recommend status quo management.
Halibut	Dan Hennen	Level 1 – Direct Delivery Current assessment is a Plan B. Alternate approach not required.
GB Winter Flounder	Lisa Hendrickson	Level 2 – Expedited Review Plan B – Loess Smoothing
Pollock	Brian Linton	Level 2 – Expedited Review Plan B – Loess Smoothing
White Hake	Kathy Sosebee	Level 2 – Expedited Review Plan B – Loess Smoothing

Individual Stock Discussion Summaries:

American Plaice:

The AOP inquired about the impact of missing survey coverage and determined that the impact was likely minimal. The AOP questioned whether both the NEFSC spring and bottom trawls surveys would be used in the Plan B approach and the lead assessment biologist indicated that an average of the two surveys would be used. The assessment plan will exclude the inshore MADMF survey from the model because of diagnostic issues, as was done in the 2017 update. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (empirical biomass estimates).

Gulf of Maine (GOM) Haddock:

The AOP debated whether the inclusion of revised recreational catch estimates merited recommending a Level 3 (enhanced) review for this assessment. The discussion revealed that the majority of recreational catch is likely generated by the party/charter boat sector, where catch estimate revisions are less significant. It was also noted that missing survey coverage was likely to have a minimal impact because key missing survey strata (offshore strata 30) are not included in the assessment. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (Loess Smoothing).

Georges Bank (GB) Haddock:

The assessment lead recommended a Level 3 review based on the incorporation of revised MRIP data and expected retrospective pattern. The AOP questioned the planned length of the projections and it was noted that the New England Fishery Management Council was requesting 3 year projections. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supports the proposed Plan B approach (Loess Smoothing).

Cape Cod (CC)/GOM Yellowtail Flounder:

The AOP noted reservations about hindcast recruitment estimates and recommended that sensitivity analyses might be conducted including or excluding these estimates. The AOP noted that the recommended Plan B approach (empirical biomass estimates) was recommended because there were catchability estimates available for the NEFSC surveys. The AOP discussed whether it should be a Level 1 vs. Level 2 review given the history of retrospective patterns for this assessment. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (empirical biomass estimates).

Southern New England (SNE)/Mid-Atlantic (MA) Yellowtail Flounder:

The lead assessment biologist recommended a Level 2 review for this assessment, based on accounting for some data corrections, natural mortality changes, the possibility of new selectivity blocks and the prospects for retrospective adjustments. The AOP asked for a clarification of the changes in M and debated whether this constituted a Level 2 or Level 3 change. It was noted that the changes would be empirical including updating the data that

drive the calculation and not introducing a new method. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (empirical biomass estimates).

Gulf of Maine (GOM) Cod:

The AOP panel debated the relative importance of changes in the recreational catch estimates, given the severe restrictions on recreational catch in recent years. It was noted that cod is an important bycatch species in the haddock recreational fishery and impacts on discard mortality could be significant and that older recreational catch data were also re-estimated. Given questions about the impact of the revised recreational catch estimates and the high level of stakeholder interest for this stock, the AOP concluded that the review for this stock should be Level 3 (enhanced review). The AOP supported the proposed Plan B for this stock (Loess Smoothing).

Georges Bank (GB) Cod:

The lead assessment biologist recommended a Level 1 review for this stock based on the already employed Plan B approach and the fact that revised recreational catch estimates would have little or no impact on the approach. It was noted that the recreational catch from this stock is highly variable. The AOP noted that while there is considerable management interest in this assessment, there is little to be gained through a more formal review. The AOP concluded that the review for this stock should be Level 1 (direct delivery).

Windowpane Flounder (Northern and Southern stocks):

The AOP had an extended discussion about review recommendations for these assessments, noting the relatively poor model fit for the northern stock. The AOP concluded that the review for the northern stock should be Level 2 (expedited review) and should be Level 1 (direct delivery) for the southern stock.

Witch Flounder:

The lead assessment biologist recommended a Level 1 review based on the simplicity of the Plan B method and the fact that the impact of missing survey coverage was minor. The AOP asked about the survey catchability estimates and it was noted that the new estimates will consider both length and day/night factors. The AOP asked if new catchability coefficients are used, how would this affect the exploitation rate estimate. It was determined that the same 9-year average would be used simply updated with new values. The AOP concluded that the review for the northern stock should be Level 1 (direct review). The alternative plan is to retain quota limits currently used for management.

Halibut:

The AOP noted that there were no significant changes and that the assessment only involved updated inputs. One AOP member recused himself from the discussion since he had developed the assessment method. The AOP concluded that the review for this stock should be Level 1 (direct delivery). There is no Plan B approach for this stock.

GB Winter Flounder:

The lead assessment biologist recommended a Level 2 review based on planned updates to the discard time series and retrospective patterns that may require rho-adjustments. The AOP inquired about the prospects for incorporating survey catchability estimates. It was noted that these were not used in the last update because of significant differences in growth rates vs. the other winter flounder stocks, but would be investigated again. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (Loess Smoothing).

Pollock:

The lead assessment biologist recommended a Level 2 review based on revised recreational catch estimates and the potential for new selectivity time blocks in the model. The AOP questioned changing the functional form of selectivity and it was noted that there were two models, one with dome shaped selectivity and the other without. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (Loess Smoothing).

White Hake:

The lead assessment biologist recommended a Level 2 review based on that there are no changes to the model, only updated data. The AOP had questions concerning the application of age-length keys and why pooled age-length keys were required. The AOP noted that there were some questions about the construction of the catch at age and additional uncertainty about the impact of missing survey coverage on survey indices. The AOP concluded that the review for this stock should be Level 2 (expedited review) and supported the proposed Plan B approach (Loess Smoothing).

AOP Process Discussion and Summary:

The AOP discussed its application of the new stock assessment process. It was noted that the distinction between Level 2 and Level 3 reviews needed time to evolve, because while the new assessment process document provided guidance as to what constituted a level 2 or level 3 assessment, there was a lot of nuance in that distinction. The role of the AOP represents guidance to the peer review process in terms of time allocation and level of detail for a given stock, and therefore the panel felt it had done its duty in providing adequate guidance for the process. The AOP appreciated the input provided by audience members including industry stakeholders and the one-page stylized summaries provided for each stock.

In summary, the meeting was productive and an effective implementation of the new assessment planning document. The meeting concluded at 3:30 pm. The peer review panel will meet from September 9-13, 2019 to complete their review.