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New England Fishery Management Council

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MEMORANDUM

DATE: April 13, 2019
TO: Tom Nies, Executive Director
FROM: Scientific and Statistical Committee
SUBJECT: SSC meeting summary from March 29, 2019 meeting

The Scientific and Statistical Committee (SSC) met on March 29, 2019 via webinar to address two agenda items:

1. Review and comment on the NOAA State of the Ecosystem Report 2019: New England
2. Review and comment on the Council's draft 5-year research priority and data needs recommendations

To address these agenda items, the SSC considered the following information:

- 1.1 Draft NOAA State of the Ecosystem Report 2019: New England
- 1.2 Presentation on the draft NOAA State of the Ecosystem Report 2019: New England
- 2.1 Council research priorities presentation
- 2.2 Draft NEFMC research priorities and data needs document
- 2.3 Report from the SSC to the NEFMC from May 25, 2017
- 2.4 Letter from SAFMC to NEFMC and MAFMC on "addressing species expansion northwards"

Agenda Item #1

The SSC received a presentation giving background and information on the State of the Ecosystem report. The task for this agenda item was to review the report and provide feedback to NOAA on the report, with the hope that they could incorporate some of the comments in the report prior to bringing the report to the New England Fishery Management Council (NEFMC or Council).

Generally, the SSC appreciated the report and the information it provided. Finding ways to incorporate this information in to existing procedures would greatly benefit and better inform the scientific advisory process.

In that context, the SSC offered the following comments to help improve the report in the framework of New England fisheries:

- Calf production should be added to the report as an important indicator on the status of North Atlantic right whales.

- It is important to specify whether the primary productivity metrics are derived from field observations or satellites.
- A species diversity indicator derived from the NOAA bottom trawl surveys should be added once all of the species data are calibrated between the R/V Albatross and R/V Bigelow surveys.
- Some of the Gulf of Maine (GOM) is not included in the information. This should be noted in the report. It was noted that this is because parts of the GOM are grouped in with the Scotian shelf ecosystem unit, however this could be identified and further clarified in the report.
- Adding some uncertainty metrics would be valuable, although the SSC recognizes that this could be difficult in cases where the data are contributed from sources outside of NOAA.
- Inclusion of a description of trends where they are significant, and any ability to forecast from those trends would be valuable information for many of the indicators presented.
- If the data are available, potentially showing links between changes in the population and species of zooplankton in the New England region with changes in condition factor of relevant finfish species would also provide valuable insight.
- A suggestion was made to view the Alaska Fisheries Science Center's "report card" (<https://access.afsc.noaa.gov/reem/ecoweb/index.php?ID=1>) as a model for helping Council members synthesize the data in the report. This would be very helpful in putting the report in to context.
- A suggestion was made to consider consistency between conceptual models in the reports (the coast-wide model had social elements that were not included in the New England model).
- It is important to note which species included in the report are managed under FMPs and which are not. The SSC indicated that more refined reports specific to species under consideration for management would be useful, and further noted that another version of the report called the "state of the ecosystem for assessments" would meet this need.
- Including social science elements in to the report would be valuable. One simple option would be to add a stronger link to the social indicator websites (NOAA website: <https://www.st.nmfs.noaa.gov/humandimensions/social-indicators/>; NOAA technical memo: https://sero.nmfs.noaa.gov/sustainable_fisheries/social/documents/pdfs/communities/2013/vulnerability_resilience_social_indicators.pdf) and the NEFSC Social Sciences Branch products website (<https://www.nefsc.noaa.gov/read/socialsci/>).
- On the "Reliance and Engagement" slide, the SSC requested more clarity be provided in interpreting the data presented. There is important information in the indicators, but this is difficult to assimilate as given.
- Where possible, links between social and economic factors and environmental indicators should be provided. These linkages should also be included in any synthesis or "report card" developed for the New England version of the report to better reflect how human communities are impacting - and are being impacted by - environmental changes.
- The final elements that the SSC felt were missing were: (1) an ocean acidification indicator; (2) information linking indicators to the appropriate precaution that should be used when considering management actions (e.g., proposed buffers); and (3) a cover letter providing a general synthesis of the materials. Inclusion of the items would enhance the report and make it more useful to the SSC, the Council, and the public

Agenda Item #2

The SSC received a brief presentation on the various research priorities developed by the Council. Progress had been made on these priorities since the SSC last reviewed them in 2017, and the SSC acknowledged that the Council had adopted some of the SSC's previous suggestions. The priorities were grouped into defined categories, and provided in a spreadsheet, which made the SSC's examination and review of the priorities much easier.

The SSC provided the following feedback and general comments on the list of the Council research priorities.

- Priorities defined as urgent could be further refined by highlighting those that apply to multiple species and which have not yet been addressed through any research. As a group, these would then be identified as the highest priority items. These items could be added to a cover letter to highlight them above the other items in the extensive list.
- Cross cutting issues are important and should receive special attention. When only looking at specific stocks or assessments, it is easy to miss systemic issues that could be addressed in a more efficient manner.
- Some SSC members had previously reviewed research priorities from other regional councils. The SSC noted that the MAFMC approach, with the format of having upfront descriptive text, then listing priorities by FMP and ranking them within each FMP, was highly informative. By only allowing three priority items under each FMP, the ranking of priority research items is facilitated - both within and across FMPs - and common cross cutting issues are more easily identifiable.
- The SSC noted that it also has research recommendations, and that perhaps these could annually be provided to the PDTs. This could be accomplished by the SSC chair parsing the recommendations from the SSC's various reports and providing these to the appropriate PDT chairs.
- Given that developing the Council's list of research priorities is a substantial undertaking, it would be useful for the Council to better define how the list is used to assess its effectiveness in initiating and funding needed research. This would help the various Council committees and teams creating their research priority lists to target their priorities in the most effective and constructive ways possible.
- The SSC noted that there was limited inclusion of social science priorities and, in the cases where social science has been identified, these priorities are longer term and therefore likely to receive lesser consideration amongst all of the other priorities. Some of the social science items identified should be reprioritized and the SSC is willing to offer more detail on which items could be reprioritized.
- Collaborative and interdisciplinary research should be highlighted. This type of research approach is valuable and imparts an improved understanding of topics in a more holistic way, and also significantly increases the potential for buy-in of the research results.

Missing elements identified by the SSC are:

- The priorities of dealing with allocation issues that arise from stocks whose geographical distribution is shifting due to drivers such as climate change and reducing bycatch (as presented in the letter from the SAFMC to the MAFMC and NEFMC). These are important issues that should be added to the research priorities.
- Priorities addressing the physiological abilities and tolerances of fish species as they relate to directional climate change are needed. Understanding this will provide more accurate

predictions of changes in movements, distributions, resiliency, and sustainability of fish populations.

- The broad category defined as “Human Dimensions” can fit in many of the existing priorities, but it is only included in some. As an example, there is an important human dimension in the new priority titled “Better understand species responses to climate change (e.g. distribution changes) and how these changes may affect fisheries” so the broad “Human Dimensions” category can also be added here. The SSC felt that all priorities could be re-evaluated with regard to the Human Dimension broad category, so this aspect of the various priorities does not get missed.

Many of the items offered in the list above were previously offered by the SSC, namely the socio-economic comments, thoughts on cross-cutting issues, and comments on the usefulness of a general synthesis that provides an overarching view of the research priorities relative to Council needs. If the Council wanted, a subgroup of the SSC could be convened to address these previously mentioned issues or any of the other comments listed above.

Summary

In summary, the SSC recommendations from this meeting are:

- The SSC hopes its review of the State of the Ecosystem report is valuable to the Council and NOAA, and the SSC is interested in continuing to help develop this in to a report that can become an important source of information for the regional council management process.
- The SSC is also interested in reviewing the more detailed ecosystem reports for assessment as these would be valuable for the SSC’s deliberations on ABC and OFL recommendations.
- The SSC provided comment on the Council’s research priorities, generally:
 - The SSC appreciates the progress made on the priorities since the last review
 - Identified gaps are allocation issues attributed to shifting stock distributions, bycatch reduction research, reviewing social and economic research priorities
 - The priorities could undergo some additional vetting to highlight the highest priorities across all FMPs and species, especially if these have not yet been addressed