



New England Fishery Management Council

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MEETING SUMMARY

Research Steering Committee

Hilton Garden Inn, Portsmouth, NH

August 8, 2018

The Research Steering Committee (RSC) met on August 8, 2018 in Portsmouth, NH to discuss: the future of the RSC, Council research priorities, updates from the Northeast Fisheries Science Center's (NEFSC) Fishery Monitoring and Research Division, the Research-Set-Aside (RSA) program review, and recently completed collaborative research.

MEETING ATTENDANCE: Matt McKenzie (Chairman), Peter Aarrestad, Mark Godfroy, Jeff Kaelin, Richard McBride, Mike Pol, Graham Sherwood, Ryan Silva, Mike Sissenwine, and Mary Beth Tooley. The RSC was supported by NEFMC staff: Rachel Feeney (RSC Coordinator), Deirdre Boelke (Herring Plan Coordinator) and Andrew Applegate (Small-Mesh Multispecies Plan Coordinator). Amanda McCarty and Henry Milliken of the Northeast Fisheries Science Center (NEFSC) attended. There were no other members of the public in attendance.

KEY OUTCOMES

- Recommendations for the future of the Research Steering Committee, research priority setting, and for the use of outcomes of one collaborative research project.

SUPPORTING DOCUMENTATION

1. Meeting cover memo
2. Meeting agenda
3. RSC meeting summary, January 17, 2018
4. Future of the RSC: RSC-related excerpts of the Council's *Operations Handbook*; *NEFMC Program Review Final Report*, May 3, 2018; staff memo re RSC, July 2018; RSC worksheet; presentation slides
5. NEFMC Research Priorities and Data Needs for 2017-2021: "Word version"; DRAFT "spreadsheet version"; NEFMC letter to NMFS re research priorities, January 3, 2018; CCC letter to NMFS re research priorities, June 5, 2018; NMFS response to CCC, June 29, 2018
6. Research-Set-Aside Program Review: draft report outline; presentation slides
7. Management Review: project final report: *Early Opening Experimental Fishery for Silver Hake/Whiting in Small Mesh Area I and the Western Raised Footrope Exemption Area*, July 2018; presentation slides; RSC management review worksheet

INTRODUCTION AND AGENDA REVIEW

Chairman Matt McKenzie began the meeting at 9:30 a.m. There were no agenda changes.

FUTURE OF THE RESEARCH STEERING COMMITTEE

Dr. Feeney presented the origins of the RSC in 1999, its evolution, and RSC-related recommendations from the spring 2018 Council Program Review. The RSC formed in response to legal mandates for more accurate/timely science to support decision-making, a rise in collaborative research funding, and a sense that regional research planning should be better coordinated. Under a U.S. Congressional mandate, the National Marine Fisheries Service (NMFS)/NEFSC partnered with the NEFMC to design its cooperative research program and develop priorities. Early on, the RSC met frequently to provide input to the NEFSC and to the nascent Research-Set-Aside (RSA) programs and to evaluate proposals. In 2003, the RSC helped the Council develop its *Research Review Policy*, with standards for what information could be used in management, what constitutes a sufficient technical review, and a management review process. For many years, the RSC conducted management reviews and gave input on NMFS- and Council-funded collaborative research programs. More recently, funds for collaborative research, related NEFSC requests for input, and the volume of final reports available for management reviews have all waned. The 2018 Council Program Review praised the RSC as a constructive forum for bringing scientists, industry and managers together, but noted that the effectiveness of the *Research Review Policy* in guiding Council actions and the role of the RSC in research priority setting are unclear. The panel encouraged clarification of the purpose, roles and tasks of the RSC and that the roles of each agency and subsidiary in research planning and prioritization be mapped out to reduce redundancy and increase efficiency.

Chairman McKenzie called for clarification questions and encouraged the RSC to develop preliminary recommendations to the Council on the *Research Review Policy* and the purpose and functions of the RSC. Staff clarified that there were many RSC meetings per year early on, but that tapered to 3-5 per year as the RSC hit its stride. Membership declined in the 2010s, and in 2016, there were no RSC meetings. RSC discussion followed. Points made by individual RSC members included (in no order):

- The RSC has provided much helpful input on the use of research results, supplementing technical reviews and providing unique input that other groups (e.g., Scientific and Statistical Committee) may not be positioned to provide.
- The RSC is a valuable communication pathway between the NEFMC and NEFSC.
- The scope of the RSC should be clarified; should it focus only on collaborative research or all NEFSC research? If the former, perhaps its name should change.
- The primary pathway for RSA programs is currently through NEFMC species committees, both for input on priorities and getting results considered in management.
- The volume of research results/reports is too great for the RSC to handle alone.
- The quality and professionalism of final reports and technical reviews considered by the RSC has generally improved over time. The RSC needs to do less quality control today.
- The RSC has been important for priority-setting for discrete funding opportunities. The RSC should continue to assist in setting priorities for future RFPs for Council funds.
- The RSC has given useful input on the scientific integrity of a few Exempted Fishing Permit (EFP) applications. Should there be a more formal role for the RSC in EFP approvals?
- The NEFMC's 5-year research priorities trickle up through species plan development teams (PDT) and species committees. The RSC's role is unclear.
- The RSC could be more closely involved in ensuring that NMFS grant programs are funding projects relevant to management.

- The RSC could be a forum to highlight bigger-picture topics that may not be an immediate management priority (e.g., climate change, full retention).
- RSC should better track what has been funded, how priorities are being addressed.

Chairman McKenzie encouraged the RSC to mull over its future, while proceeding through the rest of the agenda, noting that the RSC would continue this topic at the end of the day.

NEFMC RESEARCH PRIORITIES AND DATA NEEDS FOR 2017-2021

Dr. Feeney updated the RSC on improving the communication of NEFMC 5-year research priorities and data needs and related communications between the Council Coordination Committee (CCC) and NMFS. In January 2018, the NEFMC approved the RSC recommendation to transform the research priority list from a Word document into a more searchable format (database or spreadsheet) and include additional information about the research topics (e.g., rating, cross listings, notes). A spreadsheet was made as a first step, considering ongoing questions on whether the utility of a database would be worth invested resources, upfront and ongoing. In the draft spreadsheet, staff and plan development teams are currently filling in additional information about each topic. Through that task, a few revisions have been proposed, but the process for updating the Council's priorities is unclear. The January 2018 letter from Executive Director Tom Nies to NMFS Chief Scientific Advisor Dr. Cisco Warner asking for clarification on how NMFS uses the research priority lists submitted by Councils, prompted a discussion at the May 2018 CCC meeting, at which NMFS noted that its staff are generally aware of Council research priorities through participation in the Council process, but that there is not a systematic process for giving feedback to Councils on their priorities. Through a subsequent letter exchange, NMFS leadership committed to better integration of research priorities of the Councils and improved communication.

Chairman McKenzie called for clarification questions and encouraged the RSC to develop any additional recommendations to the Council regarding research priorities. Points made by individual RSC members included (in no order):

- The RSC may have a different sense of how priorities should be rated than staff.
- The NEFSC has its own research priorities, including those developed through stock assessments. Who is collating those priorities within the NEFSC? How are those priorities tracked through time?
- There could be a database/software shared among partners (NEFSC, NMFS) for listing priorities.
- This list of priorities should be more than a task to "tick off the box"; it should be actively used.
- The Council's research priorities should be kept up to date, not just revised every five years. Like at the North Pacific Fishery Management Council, updates could be approved annually, though the process should not be overly time-consuming.
- The most important priorities are those that reduce stock assessment uncertainty.
- The NEFSC has an annual research priority setting process, but how Council priorities are integrated is unclear.

The RSC made no consensus statements on this topic.

NORTHEAST FISHERIES SCIENCE CENTER/NORTHEAST COOPERATIVE RESEARCH BRANCH

NEFSC Fishery Monitoring & Research Division (FMRD) Chief Amanda McCarty updated the RSC on FMRD activities. The FMRD is fostering engagement between the NEFSC and industry on developing technology and data projects. The FMRD includes the Fishery Sampling Branch

(FSB; managing about 20% of the NEFSC budget and including the observer program) and the Northeast Cooperative Research Branch. The FMRD administers the RSA program. The Gulf of Maine Research Institute requested an EFP to test a maximized retention-based electronic monitoring (EM) program that would require the landing of allocated groundfish that would normally be discarded at sea. Data typically collected with EM or by an observer will therefore need to be captured on land, which has led to the development of a dockside monitoring program by the FSB in response to the EFP. The NEFSC is currently in the process of hiring a Cooperative Research Branch Chief. Ms. McCarty gave updates on current RSA proposal competitions and recently-funded projects. She noted that administrative roles between GARFO and the NEFSC are being clarified. The Study Fleet program is working to provide more timely data back to participating vessels and the software is being updated to ease data recording and enhance utility. Study Fleet data was used in the recent summer flounder benchmark assessment. The longline survey continues, with data used in a recent thorny skate status review. Related research is ongoing on cusk and skate barotrauma (New England Aquarium) and DNA sequencing (University of Florida). The Cooperative Research Branch is assisting with the current survey of crew, led by the NEFSC Social Sciences Branch. Work continue on improving communications in the NEFSC and with external partners and to improve data systems.

Chairman McKenzie called for clarification questions and encouraged the RSC to develop any recommendations to the Council regarding NEFSC cooperative research. It was asked how Study Fleet data can be better used in assessments. Ms. McCarty indicated that this is a high priority for the NEFSC, and that the following day, there would be an inter-division meeting on that very topic. The RSC talked further about Study Fleet, observers and port sampling.

Points made by individual RSC members included (in no order):

- Historically, port sampling of Boston-based haddock vessels was the basis for assessments. There is now much more fishery-dependent data from the observer program, but not much progress on using it for assessment.
- The Groundfish Committee is currently discussing the use of Study Fleet CPUE for assessment purposes.
- Commercial data are being used in assessments here and there (e.g., as model inputs), but the NEFSC could improve communications on this.
- Though data submission is a requirement of research funding, data are not made publicly accessible, though the NEFSC is discussing how to improve this.
- The Cooperative Research Branch could be more active in fostering uptake of gears developed through conservation engineering.
- GARFO and the NEFSC are developing a database of conservation engineering projects.

The RSC made no consensus statements on this topic.

RSA PROGRAM REVIEW

Dr. Sissenwine gave an overview of the ongoing NEFMC RSA program review. There will soon be an on-line survey for providing input and there will also be interviews with Council members, people who have submitted RSA program proposals (funded or not) and others.

Chairman McKenzie called for clarification questions and encouraged the RSC to develop any recommendations to the Council regarding the program review. An RSC member noted that there was an RSA review a few years ago led by the NEFSC, and it was clarified that the current review will make use of existing documents. Ms. Boelke noted that there will be specific outreach about the survey to everyone who has submitted an RSA proposal within the last five

years, as well as other announcement through normal NEFMC communications. No one will be excluded from taking the survey.

Points made by individual RSC members included (in no order):

- Several RSA program improvements have occurred over the years. The review should document program changes over time.
- For the herring shoreside monitoring program (RSA-funded), the industry has been willing to buy the fish to keep it going. How the RSA quota is monetized is important. The herring industry is not incentivized to harvest the RSA quota until after the fishery quota has been caught in a given sub-ACL area, which is not a good long-term approach. This year, the RSA quota price was more expensive than the market price. Perhaps the price should be set twice a year or have additional compensation fishing allowed.

The RSC made no consensus statements on this topic.

MANAGEMENT REVIEW OF FINAL RESEARCH REPORT

Project: Early Opening Experimental Fishery for Silver Hake/Whiting in Small Mesh Area I and the Western Raised Footrope Exemption Area

Dr. Pol summarized the project, led by the Massachusetts Division of Marine Fisheries to assess the use of small-mesh raised-footrope trawl gear to target whiting within two Gulf of Maine whiting exempted fishing areas two weeks prior to the regular opening of these areas to the whiting fishery. The project aimed to partner MADMF with five vessels to provide data on catch rates of whiting and groundfish bycatch to help evaluate the potential for opening these areas earlier in the year. For the Small-Mesh Area I, target catches were abundant in the earlier opening and like the exempted fishery (testing in the Western Raised Footrope Exemption Area had low industry interest and participation). Groundfish bycatch ratios were significantly over the 5% threshold, both in the early fishery and in the exempted fishery (though below the threshold if haddock is removed). Bycatch rates varied within the fishery, though the high bycatch vessels were not new fishery participants.

Chairman McKenzie called for clarification questions and encouraged the RSC to develop any recommendations to the Council regarding the project (written comments by individual RSC members are compiled at the end of this meeting summary). It was clarified that the haddock bycatch is accounted for within the “other sub-components” sub-ACL for haddock, and that the whiting fishermen declare out of the groundfish fishery when fishing within the exemption areas. It was also clarified that there is no current gear solution to reducing haddock bycatch, but it seems to be low along an isobath.

Points made by individual RSC members included (in no order):

- Could bycatch be projected by tracking cohorts of year-classes?
- Better predicting fish distribution is important for the fishery as well as fish surveys. Analyzing catch rates over time in this project may help improve predictions.
- Publication in the literature is encouraged; it is a compelling marine fisheries issue.
- The project seems sound, though there may not be enough data or justification for using these data to support a management action.
- Developing a Whiting RSA program could be considered, but whiting is under-harvested, and prices are relatively low, so the funding mechanism needs to be carefully considered.
- Future research might be improved with more predictive variables.
- Future work could focus on lowering the variation in vessel performance.

Mr. Applegate noted that the Whiting PDT will find the report useful (e.g., red hake estimates), though there is not a current NEFMC action on this topic. He indicated that haddock and hake separate out within 10-15 feet of depth, which may have contributed to the noted vessel differences in haddock bycatch rates. This factor could be investigated with the existing experimental fishery data. Access to portions of exempted areas could be constrained by the presence of other fishing gear (e.g., lobster and tuna fisheries).

The RSC developed the following consensus statement.

Consensus Statement #1: The RSC finds that the report and data from the *Whiting Experimental Fishery* project is suitable for consideration in management. The RSC suggests examining temporal changes in bycatch rates in the whiting fishery in Exemption Area I or conducting additional research with more predictive variables or gear refinements.

FUTURE OF THE RESEARCH STEERING COMMITTEE

Chairman McKenzie reopened the discussion on the future of the RSC and called for recommendations to the Council. Dr. Feeney reviewed the ideas generated from the discussion earlier in the day.

The RSC developed the following consensus statements.

Consensus Statement #2: The Council program review raised legitimate concerns about the need to revisit the purpose and functions of the RSC. The RSC has identified several potential roles for itself in setting research priorities, helping to see that the priorities are fulfilled, and in research communications. The RSC recommends that the Council examine the facets of engaging in the research enterprise (e.g., set priorities, promote cooperative research, coordinate how priorities may be met, ensure project quality, promote use of results) and determine if continuing a standing RSC is necessary.

- Identify research priorities
 - Continue to assist in priority setting for future RFPs for Council funds.
 - Track what has been funded, how priorities are being addressed.
- Encourage having research priorities met
 - Identify what 5-year research priorities have fallen through the cracks.
 - Be a platform for considering questions on the relevance of research results to Council FMPs.
 - Provide input on EFP decisions.
- Enhance research communications
 - Be a conduit between the Council, GARFO and NEFSC.
 - Convene scientists and fishermen, as outreach for projects.
 - Be a place to discuss big ideas that may fall outside of immediate management priorities (e.g., full retention, climate change).

Consensus Statement #3: The RSC recommends that annual updates to the NEFMC five-year research priorities come through the species PDT/Committees with NEFMC approval. However, the process should not be onerous. This would be better than the current five-year cycle in informing proposal reviews in ensuring projects have management relevance.

OTHER BUSINESS - With no other business, the meeting adjourned at 4:00 pm.

APPENDIX I – RSC WRITTEN MANAGEMENT REVIEWS OF COMPLETED RESEARCH

In preparation for the August 8, 2018, Research Steering Committee meeting, members were asked to prepare for the management review of a research project by considering in advance the 11 questions guiding a management review relative to the final reports to be discussed. This appendix to the meeting summary compiles all written comments received from individual RSC members. These comments should not be considered the consensus of the RSC. Duplicative comments have been removed.

PROJECT: “EARLY OPENING OF EXPERIMENTAL FISHERY FOR SILVER HAKE/WHITING IN SMALL MESH AREA I AND THE WESTERN RAISED FOOTROPE EXEMPTION AREA” (CHOSID, POL ET AL.)

1) Has there been a sufficient technical review of the project results and, if so, is that information available to the Research Steering Committee?

None available that I could see although the PI's, who are all well-respected in their fields, did provide significant, helpful, technical evaluations of the study's goals and objectives, and the data it produced, in creating their report.

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The report does not appear to have had an independent peer review.

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This report is sufficient for technical review

2) Did the project accomplish all its stated goals and objectives?

The project was responsive to concerns in the fishery that warming waters could be creating a different spring environment and that, therefore, earlier access to the areas of interest was desired while using a RFT to minimize GF bycatch. Unfortunately, the data does not support any certainty around the question, as I read the report. Given an environmental overlay of inter-annual temperature variations against a rising trend, consideration that there was little consistency in the gear being evaluated (e.g. net dimensions at the mouth of the net and codend size differed among vessels) it is impossible to draw any conclusions about the project's main objective, particularly from an immediate management perspective. The study design did work to move some of these questions ahead, in addition to providing the benefit of continuing to evaluate the efficacy of the RFT in reducing bycatch under various technical and temporal variables. Research like this would be expected to take place over a 3-5-year period to reduce uncertainties to a manageable degree, in my experience. My hope is that additional work in evaluating the main questions posed by the study can take place soon.

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The project was successful in collecting area/time information on catch and bycatch for SMA I. The project encountered issues with low price, dogfish and fixed gear in the WRFEA and did not continue in year 2.

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The project team met their main objective of evaluating catch and bycatch in the SMA1 but failed to do so in the WRFE area due to the reasons discussed in the report.

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It appears so.

3) Are project deliverables available and formatted for use by the Council and its technical committees?

Yes, the data seems to be extensive and in a format that could be used by the PDTs, etc. I was interested to see a broader historic timeframe for comparing the experimental fisheries to the exempted fisheries, in Table 5 & 6; however, I expect that this could be done from data available from the EF.

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The information and analysis appear to be in a format that could be useful to the Council's Plan Development Teams and others.

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The report does a good job of presenting and summarizing the research plan and results and is a valuable source of information for the Council and technical bodies.

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The report should be accessible to the Council and its committees

4) Does the project address an immediate management need or contribute to a long-term strategy to rebuild and sustain stocks?

The project is responsive to an environmental question that came from the fishery and we are fortunate in the region that many researchers are interested in supporting collaborative research projects like this one. Assisting with rigorous protocols around survey design and monitoring is particularly helpful as was clearly done in this study.

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While it is unclear if adjustments to the area/time prosecution of this fishery is an immediate management need, this project can contribute data that may allow targeting whiting while minimizing bycatch of other groundfish species.

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MA DMF was responsive to commercial fishing interests in exploring catch characteristics in this area to inform potential changes to the SMA1 season. The project evaluated a near-term management question, but the findings do not seem to support near term action. The report provides valuable information about catch levels in the SMA1 prior to the exempted fishery season, which can be used to inform management decisions. The report raises interesting questions about exempted fishery standards and how they relate to changing stock abundance and distribution through time.

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Yes, it revisits potential fishing options regarding existing 'exemption' areas

5) Does the project support past work and/or provide new information?

It has provided an opportunity to further evaluate the efficacy and use of the RFT in exempted areas, which probably should be done periodically. I was interested to learn that the measurement of discards in the RFT fishery has changed in time, for example, and a little surprised that net dimensions and cod end variations existed in the fishery to the extent they apparently do. I am unfamiliar with the RFT work that originally allowed access in the EF areas, however, I support status quo management until the temporal nature of the openings can be better understood.

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The project does provide new information on the presence and absence of target and bycatch species, as well as bycatch ratios in the GOM whiting fishery.

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The report provides valuable information on bycatch levels in the SMA1 study areas in the 2016 and 2017 experimental fisheries. This information would otherwise be unavailable and has been

a long-standing question posed by commercial fishing interests that participate in the SMA1 exempted fishery.

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Yes, it provides new information that could be used to evaluate future research and management options.

6) Does it point to a management action not in place now, or offer an innovative solution to a problem?

The project should not be used to change the status quo access arrangement at this time, although the Small-Mesh Multispecies AP & Committee should discuss the project at a future meeting, so the implication of the study from the perspective of the fishery participants is better understood.

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It appears that more work may need to be conducted before a management action is taken to adjust the area/time prosecution of the whiting fishery. However, this is a policy decision for the Council. Are the current bycatch ratios for the fishery acceptable in the experimental fishery? Should the 5% rule apply to all managed groundfish? Would other management tools, such as sub-ACLs provide better management outcomes? Is this a Council priority?

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The report does not offer a near term management action but identifies several questions that could be explored relative to the study findings. Of note are questions about how exempted fishery standards consider stock health, and possible vessel effects that affect catch performance and possible steps that could be taken to improve catch performance.

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Further development of this approach may lead to specific management actions. The bycatch of haddock may not be concerning given the good status of that stock, but the bycatch of yellowtail flounder is concerning given the overfished/overfishing status of that stock.

7) Did the project elucidate other information not specifically stated in the goals and objectives?

As stated, above, it did provide some insight into the data around the use of the RFT, in near real-time, which I found of value.

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No.

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The report does a good job of considering observed data from the exempted fishery in relation to the experimental fishery.

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Not really, it was a rather concise report.

8) Is there a need for further work or follow-on research such as wider field-testing?

Yes, as difficult as it is to plan for funding multi-year surveys utilizing industry platforms. This is an approach I believe the NEFSC is also in support of...however, we should not let the perfect become the enemy of the good and forge ahead, even in a proof-of-concept mode, which could categorize this project.

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This research question would benefit from further work. The project concludes that an earlier opening of SMA I would likely lead to levels of bycatch above the 5% threshold. Authors suggest that future efforts on gear modification, and education and outreach on gear use could provide value.

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The report identifies several follow-on questions that could be explored further (vessel effects, perhaps exemption standards), but does not indicate a need for future field work on this topic. Although data from additional years would be informative, it does not seem critical.

Yes, understanding the vessel effect is important for predicting the bycatch that may result in future years and specific fishing practices.

9) Who is the appropriate end-user and are there recommendations/caveats about how this information should be used?

The biggest, immediate beneficiaries of the study are those fishermen who agreed to become involved in the work and demonstrated their commitment to the science used to manage the fishery, and the fishery management process, in doing so. Repeatability should broaden the usefulness of the study to managers, and the fishery, as there are conflicting data trends in the limited study results.

The appropriate end users of this information would include the Council, its Committees and Plan Development Teams, as well as the fishermen prosecuting the fishery.

Appropriate end users include the small mesh multispecies and NE multispecies PDTs and APs. The report does a good job detailing their findings and relating them to the management program. There is good discussion on their comparison with exempted fishery data and caveats that need to be considered due a lack of controls and inconsistent protocols between programs.

This is sufficient for consideration by the whiting committee. The restricted, technical nature of the study will make it difficult to publish in peer-review science journal, so it is relevant that it was presented here so that consideration of the results by management can go forward. Still, additional testing/comparisons to determine what causes variability in bycatch by species/groups is likely needed for management change.

10) Overall rating based on the above criteria: excellent, very good, good, fair, or poor.

I thought the study design (other than it being limited to 2 years) was very good and the execution and evaluation of the project was excellent. The report also recommended several areas where additional, related work would be of value. A review of these by the Small-Mesh Multispecies Committee could help develop future small mesh research projects.

The project did an excellent job addressing a very focused question.

Very good.

Excellent technical work, but now that the variability is documented, a more mechanistic cause-effect factor in additional testing would be useful for predicting the effects of various management options.

11) Additional comments.

None.