New England Fishery Management Council

SUMMARY
Research Steering Committee Meeting
Sheraton Four Points, Revere, MA
November 30, 2011

Committee members: Goethel (chair), Preble (vice chair); Libby, Beutel, Brogan (absent), DuPaul, Hoey (absent, Meredith replaced), Pol, Serchuk (absent), Platz (absent)
Staff: Haring

The primary purpose of the meeting was to review five cooperative research final reports received since the last meeting earlier this year. In addition, the Committee heard a report from the Northeast Regional Cooperative Research Program, which focused on NOAA's research budget, and a report from the NMFS' Regional Office on the agency's efforts to respond to the Council's concerns about scientific research catch. The Committee also heard a presentation on an automated catch monitoring system being developed at UMass Dartmouth (UMAD). The Committee reviewed the following reports:

- "Use of kites in shrimp codends to reduce small shrimp and bycatch species," (NEC) – Pingguo He UNH, Dan Schick, ME DMR
- "Pulse: A cooperative partnership for pelagic ocean ecosystem monitoring in the Gulf of Maine," (NEC) – Jeffrey A. Runge and Rebecca J. Jones
- "Saco Bay Scallop Stock Enhancement Project," (NEC) – Heather Deese-Riordan
- "Activity and Distribution of Cod in the Ipswich Bay Spawning Area," (NEC)– W.H. Howell, UNH
- "Building on Promise: Continued investigation using a 4-seam bottom trawl to improve escapement of small haddock and cod," Dana L. Morse, ME Sea Grant (NEC)

Historically, there were multiple sources of federal funding for cooperative research in the northeast, including Congressional line items in the NOAA budget for the northeast (and southeast), National Cooperative Research Program (NCRP) funding, and third party earmarks in the federal budget. Research Set-Aside (RSA) programs are an additional source of support for cooperative research, but are essentially self-funded, however, administrative costs associated with those grants based programs are derived from NCRP base funding. Based on the current budget that has cleared the joint conference committee in Congress, funding from Congress will be substantially reduced, approximately 50% or more from recent levels. The Congressional line for Northeast Cooperative Research was eliminated 2 years ago, and replaced with funding under the catch share budget line. That funding has been initially cut by 50%, although it is likely the reduction will be larger since sector support for observer coverage will likely not be reduced, hence other components under the catch share line will need to be reduced by more than 50% Funding for parts of the NCRP program from the National Cooperative Research Program allocations are conditional on the success of the Regional Office and

Science Center's bid for funds in competition with other regions. NMFS' priorities for the remaining funds will be the Study Fleet, and support for the conservation engineering network program and staffing of the Research Set-Aside programs. Programs that stand to be eliminated or severely reduced are the Marine Resource Education Program (MREP), additional support for the Northeast Consortium (NEC) and the Commercial Fisheries Research Foundation (CFRF), supplemental funding for the Maine and New Hampshire inshore trawl survey, and support for the New England Fishery Management Council's Research Steering Committee. This budget will likely result in cancellation of regional based cooperative research competitions.

Staff from the Regional Office Sustainable Fisheries Division updated the committee on the status of the mid-sized eliminator trawl which the Council had recommended for adoption. He said the gear is being included in Framework 47 to the Northeast Multispecies Fishery Management Plan, which is scheduled to go into the proposed rule stage in January, with a target implementation by May 1, 2012. He said the agency is trying to design a rule that would accommodate a range of sizes of the net rather than a single specific size, to broaden its applicability to the commercial fishery. He also commented that the Council or Committee should discuss the broader issue of how new gears could be adopted in a more efficient or streamlined manner, in anticipation of new gear configurations that are developed over the upcoming years.

On June 29th, following a discussion at the Council meeting, the Council Chair sent a letter to Eric Schwab, the Assistant Administrator for Fisheries, expressing the Council's deep concern over the lack of control and accountability for scientific research catch of managed species, including the sale of such catch. In response, the agency has begun an evaluation of the issues and options available to address the Council's concerns. The Regional Office staff updated the Committee on the progress on this matter, including providing options for those aspects that might be addressed by the Council within the fishery management plans. He also noted that while some issues are matters of regional policy or regulation that could be addressed by the Council, some provisions are governed by federal law or policy under which the Council has no discretion or ability to regulate. Essentially, the Councils have the authority to regulate fishing under the Magnuson-Stevens Act, but the Act specifically exempts scientific research from scientific research vessels from the definition of fishing.

These limitations extend to all activities associated with such research, including reporting requirements, sale of catch, or the amount of catch that can be allowed or authorized. Meanwhile, the Act and the Guidelines also require the Councils to account for all catch when evaluating the performance of the fishery relative to Annual Catch Limits (ACLs) and Overfishing Limits. The major source of concern among Committee and Council members is that while most current academic, state and other institutions engaged in scientific research voluntarily cooperate with NMFS in obtaining Letters of Acknowledgement and reporting catch, there is tremendous potential for abuse, for which there is no remedy or recourse under the law. The concern is also that as federal funding for research is cut back, and as allocations of some commercial species are also restricted under stock-rebuilding programs, there is a greater incentive to utilize this avenue to

generate research funds and vessel income. The Committee members expressed the desire to minimally establish some reporting requirements so that the catch can be accounted for within the management plan.

Consensus

> The Committee would like to request that NOAA General Counsel clarify their interpretation of the Act that the agency cannot require either the vessel or the research institution to report its catch

Committee members agreed that if a method could be adopted to monitor research catch, it would mitigate somewhat the potential for abuse. The Committee agreed to revisit the scientific research catch issue at its next meeting.

NMFS staff also updated the Committee on the status of Letter of Acknowledgement and Exempted Fishery Permit applications. He also indicated that Protected Resources Division has developed a list of research priorities which the agency would like to present at the next Committee meeting.

Glenn Chamberlain, a researcher at UMass-Dartmouth, gave a presentation on an automated catch monitoring system he is developing using photogrammetry. The system is in the proof of concept phase, and he was seeking early input from the Committee to assist in further development of the concept. Committee members raised several questions and expressed a few concerns with the applicability of the system to the types of fishing platforms in this region. The Committee took no formal action on this matter.

The Committee then embarked on the review of research reports, and agreed with the conclusions of the independent, anonymous reviewers in all cases. The first report the Committee reviewed was, "PULSE, A cooperative partnership for pelagic ocean ecosystem monitoring in the Gulf of Maine," co-authored by Jeffrey Runge and Rebecca Jones. The report summarizes the results of a plankton monitoring program conducted in 2003-2005. The primary plankton of interest, *Calanus finmarchicus*, is a lipid-rich copepod that is a primary prey for adult herring and northern Right Whale, and perhaps other species in various life stages. As such, the Committee agreed that the research has particular relevance to ecosystems based fishery management and essential fish habitat, as well as to management of herring and protected species.

Consensus

> To accept the report and to forward it to the herring and habitat Plan Development Teams, as well as to staff involved in ecosystems-based fishery management and protected resources. The Committee would like to draw particular attention to the hypothesis on page 12 of the report, postulating a relationship between adult herring aggregations and *C. finmarchicus* blooms.

The second report under review was, "Use of kites in shrimp codends to reduce small shrimp and bycatch species," co-authored by Pingguo He and Dan Schick. This study tested a hypothesis that codend meshes expanded by water-borne kites would allow more

small shrimp and finfish to escape. The results of the experiment did not support the hypothesis. The Committee heard comment from the audience that Barry O'Neil of the Aberdeen Lab has done considerable research into the effects of codend loading on mesh shape and size, and agreed that that research may contribute to future work along the lines of the report being reviewed here.

Consensus

To accept the report and to forward it to the research community for information purposes.

The third report, "Building on Promise: Continued investigation into using a 4-seam bottom trawl to improve escapement of small haddock and cod", was authored by Dana Morse. The experiment had limited success in releasing small cod and haddock compared to the control net, however, the Committee concurred with the reviewers that the use of an open codend changes the hydrodynamics inside the net, and may have affected the results. Committee members felt that more detailed reporting of the data, such as catch by numbers on a tow-by-tow basis, would have helped the review and development of more constructive comment. Members generally agreed that projects such as this should use as a control gear that conforms to what is in use in the fishery, because, otherwise, one introduces additional sources of variability or uncertainty.

Consensus

The project has no immediate application to management, but it should be kept on file for future reference (report accepted)

The fourth report under review was, "Saco Bay Scallop Stock Enhancement Project", authored by Heather Deese-Riordan. This project was an attempt to undertake wild scallop stock enhancement by collecting wild spat and reseeding historically productive scallop grounds, and to monitor the sites for seeded spat migration and predation. While the project was unsuccessful in its primary goal, in part due to vandalism of equipment, the project was successful in developing cooperative relationship between fishermen and researchers, and in social aspects of conducting such a project, including factors such as participation, remuneration, territoriality, gear and area conflicts.

Consensus

This report has no immediate application to management but should be retained on file (report accepted).

The final report under review was, "Activity and Distribution of Cod in the Ipswich Bay Spawning Areas, authored by Hunt Howell. This project involved tagging pre-spawning cod with data storage tags (DST), and implanting some of those fish with acoustic transmitters. The fish were then tracked over a two-month period during the Spring spawning season. The Committee agreed that the project was highly successful and imparted some important new information to the understanding of cod spawning and movements. Specifically, the project demonstrated spawning site fidelity, and residency during spawning, provided new information about the size of home range and cod

spawning habitat. The project also confirmed that cod experience barotraumas upon release, characterized by uneven and sporadic vertical movements, with up to 18 days required for behavior to return to normal. The project characterized vertical movements of cod, and how they vary from area to area and temporally. All of these results have application to management (for example, informing the discussion on suitability of properly defined spawning closures), as well as scientific aspects, (for example, the influence of vertical movements on catchability in bottom trawls may affect the outcome of stock assessments based on trawl surveys).

Consensus

The Committee accepts the report and agrees with its conclusions, with some concern that it is based on only one year of data. The report should be forwarded to the habitat and groundfish PDTs, and should be considered as the Council proceeds with ecosystems-based fishery management.