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New England Fishery Management Council
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Research Steering Committee
October 30, 2008
Mansfield, MA
DRAFT Meeting Summary

The Research Steering Committee (RSC), chaired by Council member David Goethel, met on October 30, 2008 at the Holiday Inn in Mansfield, MA. Other Council members serving on the committee and in attendance were Doug Grout and Dana Rice. Additional participating committee members included fishermen Richard Taylor and Curt Rice, Michael Pol of the MA Division of Marine Fisheries, Dr. John Hoey of the National Marine Fisheries Service's Cooperative Research Partners Program (CRP) and Dr. Fred Serchuk from the Northeast Fisheries Science Center (NEFSC). New England Fishery Management Council (NEFMC) staff member Patricia Fiorelli also was present along with CRP staff Dr. Earl Meredith.

Audience members included Ryan Silva from National Marine Fisheries Service's Regional Office, Steve Eayrs and Dan Salerno from the Gulf of Maine Research Institute, Cape Cod, MA gear technologist Ron Smolowitz, Rachel Feeney from the Northeast Consortium, Peg Petruny-Parker of R.I's Commercial Fisheries Research Foundation; and research project Principal Investigator (PI) David Chosid, currently the MA Division of Marine Fisheries.

Overview
The following agenda items were addressed during the meeting. The RSC:

- Received a briefing on the status of NMFS's Cooperative Research Program activities and funding;
- Reviewed preliminary work and revised the NEFMC's five-year research priorities;
- Conducted two management reviews of final reports funded through cooperative research programs in the Northeast:
  - ***Pilot Gillnet Survey of the Cashes Ledge Closed Area***; PIs - Kevin Kelly, ME DMR and Capt. Matthew Thompson, Monhegan Island, ME; funded by the Northeast Consortium ($25.000)
  - ***Effects of Codend Mesh Size on Multispecies Yield and Spawning Stock Biomass in the Western Georges Bank Trawl Fishery***; PIs - Joseph DeAlteris and David Chosid, URI; funded by NMFS's Saltonstall-Kennedy Program ($128,750)
- Discussed the use of a workshop format to conduct future RSC management reviews; and
- Discussed issues related to the Council's research set-aside programs

Update on CRPP Activities
Dr. Hoey briefed the committee on FY08 and FY09 CRP activities. A major focus in FY08 involved making industry-based survey and tagging data available to the GARM for stock assessment work, per the Council's request. Among other FY08 initiatives, the program has leased an "eliminator trawl" in cooperation with URI Sea Grant to help encourage and broaden use of the gear among interested fishermen. He reported that status quo funding was provided for study fleet program

infrastructure, field staff and programming to improve record keeping and reporting, all of which will contribute to and enable expanded use of this tool. Six established study fleet vessel contracts were maintained with four extended through 5/26/09; no cost extensions were provided to hagfish and tilefish vessels and 14 additional trawl vessels were added at the end of FY08. FY08 funds will support these vessels through September 2009.

While the overall FY08 Cooperative Research Program operated under a reduced budget due to a national level rescission for the NOAA fuel shortfall, core activities were maintained, including funding for the NEFMC's Research Steering Committee, the tag reward programs, the UNH tagging symposium and the second year of halibut tagging, and reduced funding for the ME/NH Inshore Groundfish Survey. No additional FY08 funding was provided to the cod tagging program which will run out of funds in March 2009, or the Marine Resource Education Program sessions, effective in late FY08 or early FY09.

Dr. Hoey also announced that initial FY09 activities will focus on a programmatic review of the NEFMC and MAFMC research set-aside programs, as well as region-wide planning efforts over the next three-to-five months. This exercise will include the development of new cooperative research priorities that address issues raised during the Groundfish Assessment Review Meetings. Dr. Hoey described the Cooperative Research Program as having very limited funds under the current continuing resolution (through March 09).

Multi-Year Research Priorities

The committee began work to develop NEFMC research priorities for an initial five-year period, in keeping with the reauthorized Magnuson Reauthorization Act (MSRA). A list will be forwarded to the Council's SSC for final approval before the upcoming Council meeting. In its discussion of refining and prioritizing the Council's oversight committee/plan development team list of research needs, the RSC agreed its immediate chore was to address the MSRA legal requirement to provide five-year research and data needs and to work on a separate list for cooperative research and other purposes at a later date.

The RSC's approach was to group priorities with respect to themes but without additional prioritization. It also encouraged the species committees and Council, either now or in the future to focus on and identify the *critical* research and data needs that must be addressed in order to manage the fisheries under their jurisdiction and avoid the development of a simple wish list. Finally, the committee agreed that the identification of overarching themes followed by specific research items would be the most useful approach and the staff was charged with undertaking the task.

Final Project Reviews

The Research Steering Committee reviewed two final reports related to cooperative research. As outlined in the Council's Research Review Policy, the RSC is charged with reviewing final reports that are generated through cooperative and possibly other research activities in the Northeast Region and providing advice on whether results may be acceptable for consideration in the management process.

The reports reviewed at this meeting addressed two NEFMC research priorities --- for the first project, quantify the impacts of closed areas (and evaluate the effectiveness of timing closures to coincide with spawning activity); and for the second, research fishing practices or gear modifications that may change the ratio of component catch species or improve size and species selectivity of gear.

1). *Pilot Gillnet Survey of the Cashes Ledge Closed Area*; PIs - Kevin Kelly, ME DMR and Capt. Matthew Thompson, Monhegan Island, ME; funded through the Northeast Consortium ($25,000). Two independent technical reviews were provided by the Consortium.

The PIs proposed a pilot study to test the use of gillnets to inventory fish populations in the Cashes Ledge Closed Area, historically important fishing grounds in the Gulf of Maine that have been seasonally closed to groundfish gear since 1999. Gillnets composed of panels of different mesh sizes were proposed as a sampling tool to effectively sample groundfish in complex habitat, including species such as pollock that are not effectively sampled by otter trawls. The expected outcome from the project was a sampling methodology using gillnets to minimize damage to bottom habitat and to effectively sample a variety of species. The objective was to develop long-term standardized measures of relative abundance for groundfish in closed areas in cooperation with commercial fishermen. The project addressed the topic area "***monitoring of closed areas***" in the Northeast Consortium's 2004 Request for Proposals for Project Development Awards.

Project Results

While results were limited, the study in general demonstrated an abundance of white hake, cod, and pollock in the Cashes Ledge Area. The authors also stated that sampling in the spring and summer was sufficient to demonstrate that seasonal patterns exist in these species' abundances within the closure area.

RSC Discussion

As a pilot project, the RSC agreed with the Consortium technical reviewers that more information was needed to establish how the project would lead to a better understanding of closed area monitoring and with the description of technical shortfalls regarding standardized sampling gear and deployment methodology. The RSC also agreed that before any similar work is conducted, each of these issues would need to be addressed.

2) *Effects of Codend Mesh Size on Multispecies Yield and Spawning Stock Biomass in the Western Georges Bank Trawl Fishery*; PIs - Joseph DeAlteris and David Chosid, URI; funded by NMFS's Saltonstall-Kennedy Program ($128,750). A technical review was provided following initial submission of this report to NMFS in 2005; a revised report was submitted to NMFS in 2006 and forwarded by the authors to the NEFMC, with several additional corrections added in July 2007. RSC member Michael Pol recused himself from this discussion because of his employment relationship with one of the PIs.

Project objectives were to conduct mesh size selectivity studies aboard a large commercial fishing vessel and integrate the results of the study into yield-per-recruit (YPR) and spawning stock biomass-per-recruit (SSBPR) models evaluating the effects of incrementally increasing mesh sizes. Specifically, the investigators 1.) conducted mesh selectivity studies using an alternative tow method aboard a commercial fishing vessel; 2.) conducted selectivity analyses on resulting data and generated selectivity curves for each species by mesh size and shape; and 3) conducted YPR and SSBPR analyses and generated isopleths diagrams.

Mesh size selection studies were conducted on winter flounder (*Pseudopleuronectes americanus*), yellowtail flounder (*Limanda ferruginea*), Atlantic cod (*Gadus morhua*), and pollock (*Pollachius virens*) using nominal codend mesh sizes of 16.5 cm (6.5 in), 17.8 cm (7.0 in), and 20.3 cm (8.0 in) square and diamond shapes. The results were incorporated into single species yield per recruit

models, and a multispecies yield per recruit model was developed using relative recruitment multipliers (RRMs) based on small mesh trawl catches obtained during the selectivity study.

Project Results

As the authors summarized, the results of these analyses showed that the multispecies yield per recruit is maximized for the 17.8 cm (7.0 in) diamond-shaped codend mesh size. Further, for the existing 16.5 cm (6.5 in) codend minimum mesh sizes, the minimum legal fish size for winter flounder could be minimally increased from 30.5 cm (12 in) to 35.6 cm (14 in) and increased for yellowtail flounder from 33.02 cm (13 in) to 35.6 cm (14 in) in order to preclude circumvention of the groundfish minimum mesh size regulations.

RSC Discussion

One RSC member cautioned about the short time period in which the work was conducted and the possible impacts of the size and species composition available in the time and place where experiments were conducted. During a discussion of the impacts of variability in mesh size of commercial nets, the author noted that the methods section (page 6 of the report) may be important to potential end users:

> Ten consecutive meshes from each codend were chosen haphazardly and measured at the beginning and middle of each of the three voyages to monitor for changes in the actual stretched mesh sizes over time. Measurements were taken along the run of the twine using a standard ruler with each aperture stretched to its maximum length. The resulting actual mesh sizes were averaged over the entire study with respect to each expected mesh shape and size. The various mesh sizes are referred to by their nominal mesh sizes and not the actual mesh sizes although the actual mesh sizes are utilized in all related calculations.

The author also said that figures on pages 55-56 should not be used because of likely changes in stock structure since the work was completed. It was also discussed that yield-per-recruit analyses may be out-of-date because of the now altered growth and maturation rates of several of the species examined. RSC members also pointed out the possible impacts of the size of the vessel used in the experiments, its net size and towing speed. The RSC recommended and the author agreed to forward the available raw data to the Council's Groundfish Plan Development Team, the most likely end user of this report with respect to Council management activities.

Workshops as a Vehicle for RSC Management Reviews

The Research Steering Committee agreed that workshops are good vehicles for sharing research results but that for the more critical management reviews, the committee should continue in its current mode of reviewing final reports accompanied by technical reviews provided by the Northeast Consortium and Northeast Fisheries Science Center. However, the committee agreed that researchers need a clear pathway for vetting results. Presentations of ongoing projects also were recommended as a useful activity for both the RSC and PIs. Projects reviews conducted on a thematic basis --- gear work, life history studies, habitat work, etc. --- were also considered helpful. Other recommendations included RSC briefings following the various regional research workshops, including efforts such as the last year's haddock separator workshop or the scallop survey advisory panel's recommendations.

Issues Related to Council Research Set-Aside (RSA) Programs

Several issues identified at the meeting were referred to meetings later in the year and beyond that will be conducted by staff of the Northeast Fisheries Science Center who are undertaking a programmatic review of Council RSA programs. Leading up to the review, a series of meetings will take place to gather information that will be formally presented to an RSA program review panel.

That panel will be formed early next year and will include experts who are able to evaluate all aspects of RSA programs and make recommendations to NMFS and the Councils regarding RSA programs. The first meeting will be a fact-finding workshop focusing on the economic performance of the RSA programs in the Northeast Region. It will be held on Monday, December 8, 2008 at 9 a.m., Narragansett-Northeast Fisheries Science Center Laboratory conference room. For more information contact Dr. Earl Meredith at 978 281-9276 earl.meredith@noaa.gov .