



## New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116  
John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

### **Research Steering Committee May 30, 2007 Holiday Inn, Mansfield, MA Meeting Summary**

The Research Steering Committee (RSC), chaired by Council member David Goethel met on May 30, 2007 at the Holiday Inn, Mansfield, MA. Other Council members serving on the committee and in attendance were Philip Ruhle and David Preble. Additional participating committee members included fishermen Richard Taylor, Gib Brogan of *Oceana*, Michael Pol of the MA Division of Marine Fisheries, Dr. John Hoey of the Northeast Cooperative Research Partners Program (NCRPP) and Dr. Fred Serchuk from the Northeast Fisheries Science Center (NEFSC). New England Fishery Management Council (NEFMC) staff member Patricia Fiorelli also was present.

NCRPP staff Dr. Earl Meredith attended along with Paul Perra and Harry Mears from the NOAA Fisheries Regional Office (RO). Rachel Gallant, Dr. Chris Glass and Chris Manning of the Northeast Consortium (NEC) attended along with NEC associates Dicky Allison and Bob Gorman from the Woods Hole Oceanographic Institution (WHOI). Other attendees included Chad Demarest of the Massachusetts Marine Fisheries Institute and Dr. John Annala from the Gulf of Maine Research Institute. Research project principal investigators (PIs) Tom Rudolph and Paul Parker also attended, and along with several fishermen represented the Cape Cod Commercial Hook Fishermen's Association.

#### **Overview**

The following agenda items were addressed during the meeting:

- Review of two research project final reports provided by the Cape Cod Commercial Hook Fishermen's Association
- Review and development of recommendations for the NCRPP-sponsored peer review of the pilot study fleet project conducted under the auspices of the NEFSC
- Discussion of data archiving and data access in the context of how cooperative research data is currently made available
- Development of recommendations concerning the Northeast Fisheries Science Center's report on the impacts of fishing on groundfish spawning activities
- Review of the research-related mandates in the reauthorized Magnuson-Stevens Fishery Conservation and Management Act
- Briefing on the status of NCRPP activities and funding for cooperative research
- Review and discussion of the summary report from the conveners of the April 2007 haddock separator trawl workshop; the workshop was funded by the NCRPP and hosted by the University of New Hampshire (agenda item added at the meeting)

Major points made during the RSC meeting are highlighted below.

## **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.

Both of the reports reviewed at this meeting addressed the same research priority --- fishing gear selectivity: gear research that enhances selectivity, targets healthy stocks, minimizes harvest losses and bycatch and improves fishing practices.

**1). *Production and Testing of an Alternative Bait Selecting for Haddock***, funded as a project development award by the Northeast Consortium. Final report submitted by Captain Mark Leach, and Tom Rudolph of the Cape Cod Commercial Hook Fishermen's Association as well as a number of other industry partners, and Dr. Susan Goldhor of the Center for Applied Regional Studies in Cambridge, MA. Project award - \$12,700.

The Council received this final report, along with technical reviews, from the Northeast Consortium in February 2007. The primary purpose of this project was to test whether fabricated baits could reduce the catch of cod, relative to that of haddock, to an extent that would allow hook fishermen to harvest haddock in areas closed to cod fishing. Eight benthic longline fishermen tested haddock baits developed in Norway and the Aleutians, as well as squid and herring. In addition, a novel fabricated bait was developed for this project by Dr. Susan Goldhor, and a small amount of the initial version was manufactured and tested. All three fabricated baits fished well and significantly reduced the catch rates of cod, relative to that of haddock, below that achieved with herring. The experimental design did not include a paired comparison between experimental and control baits. NEC peer reviewers judged that results with fabricated baits were encouraging enough to justify further research.

**2) *Using Hook and Line to Minimize Cod Bycatch in a Directed Haddock Fishery on Georges Bank and in the Gulf of Maine***, funded by the Northeast Cooperative Research Partners Program. Final report submitted by Tom Rudolph and Paul Parker of the Cape Cod Commercial Hook Fishermen's Association, Linda Mercer of the Maine Dept. of Marine Resources and Yong Chen of the University of Maine. Project award - \$300,000.

The Council received the final project report from the Northeast Cooperative Research Partners Program in May 2007, along with a cover letter summarizing a number of technical comments. The main objective of this project was to confirm the appropriate bait, location, and seasonality to minimize bycatch of cod (*Gadus morhua*) while targeting haddock (*Melanogrammus aeglefinus*) with benthic longline gear. The ultimate goal was to identify potential Special Access Programs (SAPs), in which fishermen could be granted exemptions from various input controls (i.e. closed areas, hook limits, etc.) in exchange for adhering to a higher standards of monitoring and performance. The investigators concluded that the catch rate of landed haddock was significantly higher than the catch rate of discarded haddock, as well as landed and discarded cod in the longline fishery using Norbait baits.

While the PIs did not directly compare baits, follow-on analyses were undertaken comparing the catch of cod per haddock between otter trawls and longline gear in the Eastern U.S./Canada

Management Area and among longlines operating with squid, herring or Norbait as bait in Closed Area I. The cod/haddock catch rates were low across baits in Closed Area I. The investigators found statistically significant differences in the cod bycatch rates of longliners, mainly using Norbait, and otter trawls in the same months and areas in the Eastern U.S./Canada Area. Reviewers found this ancillary analysis provides support for the hypothesis that bycatch rates of cod in hook gear can be reduced by the use of artificial baits and, although not definitive, that bycatch rates of cod are lower in hook gear than observed in trawl gear.

### **RSC Discussion**

The RSC had some difficulties following the sequence of the somewhat piecemeal materials provided for review. For this reason and in order to discuss the body of work as a whole, the committee addressed both projects in their comments. Committee members agreed with what they termed the excellent technical comments from the NEC and NOAA Fisheries, concurring that the preponderance of evidence was in keeping with the PI's conclusions. They also noted that reviewers identified the need for further work, but discussed the possible difficulties in replicating conservation engineering projects that are subject to the natural variability that occurs in all fishery operations --- a feature that, in turn, affects an investigator's ability to reproduce results. The committee also recognized that work on the fishing grounds also was, and will in the future, be constrained by the very low allocation of cod available under most experimental fishery permits. CPUE was determined to be a reasonable proxy for the lack of side-by-side comparisons with different baits.

Having voiced the above concerns, the RSC agreed to forward both project reports on to the Council's Groundfish Committee and its Plan Development Team (PDT) for their use as appropriate. Members agreed by consensus that the Council and PDT should use caution in making broad assumptions about using these results in space and time outside the areas tested. An experimental fishery was discussed as a possible vehicle to collect more and better data for decision-making. The RSC encouraged the PIs to put their information in a single document for the PDT so that a synoptic review with complete information from all sources is available in a reasonably digestible format.

### **NCRPP-sponsored Peer Review of the Pilot Study Fleet Project**

A peer review of the NCRPP Study Fleet /Electronic Logbook project was conducted in March. During the ensuing period a verbal review was presented to the RSC at its last meeting with the final written report presented by Dr. Hoey on May 30. To quote from the report:

The Study Fleet project provides a solid basis for gathering some types of information that might be useful for improving current stock assessment and management processes. These types of information principally include tow-by-tow catch data, area of catch, temperature at depth and self-reported landings on a near real-time basis.

In addition to an overview, the report covered three other aspects of the project:

- Evaluate the accuracy and precision of measures of fishing location, effort duration, and catch (landings and discards) estimates as they relate to use in stock assessments and management analyses and if possible, recommend additional analyses of these data (Note: a technical manuscript review is not part of the terms of reference – the emphasis is on what the analyses reveal about the data characteristics).

- Evaluate recent activities, review software (functionality and data collection only) and evaluate the design of a proposed study to assess efficacy of catch self-reporting protocols. Provide a prioritized list of suggested changes.
- Evaluate the merits of alternative deployment strategies. If possible, provide advice on fisheries, or specific research questions, which would benefit from Study Fleet data.

In determining “where we go from here” the RSC advised that the study fleet would not necessarily be a tool that would enhance the stock assessment processes in a “classical sense”. The committee recommended the report be channeled to the Council’s PDTs and/or committees given their experience with the practical information needs associated with specific management programs. For example, in some cases the operational details of a particular program are necessary for a complete evaluation to occur, especially with the greater emphasis on place-based management. The RSC believes these groups can best respond to how the study fleet concept might be applied. Committee members pointed to page 4 of the peer review report as information that would be helpful to managers. **As discussed, PDTs should be aware that recommendations for deployment of a study fleet should be forwarded to NCRPP program staff by this October.**

### **Data Archiving and Data Access**

Bob Gorman and Dicky Allison of WHOI made a presentation to the RSC on the Northeast Consortium’s system which allows researchers, managers, fishermen, the public and others to access data from NEC-funded cooperative research projects. Their PowerPoint presentation is appended to this meeting summary. The Fisheries and Oceans Data Management System may be accessed at <http://www.northeastconsortium.org/data.shtml>.

A number of points were raised following the presentation. Several related to the necessity for PIs to supply their data prior to conducting technical reviews of the final reports; others involved the timeframe for receipt of raw data while ensuring confidentiality to allow for the publication of research papers before data is made available to the general public. A number of consensus statements were identified as a matter of “best practices”, as opposed to requirements, in an acknowledgement to real-world exceptions or unusual circumstances.

- Technical reviews of final reports should not be conducted unless the underlying data is provided and made available to reviewers.
- A list of standard elements for data recording and posting, particularly for industry-based survey work, as well as a system of quality controls, is considered essential for data that will be used in federal fisheries management decision-making.
- ICES/FAO Working Group on Fishing Technology and Fish Behaviour was identified as an appropriate body to develop protocols for standardizing, documenting, reporting, and analyzing data collected from comparative gear experiments.
- Providing raw data to facilitate cross-checking *as soon as possible*, particularly in the case of long-term assessment-related projects, is a particularly important step in providing data access and ensuring proper archiving.
- Before closing out a contract, ensure the transfer of raw data has occurred.

### **NEFSC's Report on the Impacts of Fishing on Groundfish Spawning Activities**

The committee discussed a report provided to the RSC in response to its request for a review of the Experimental Fishery Permit Guidelines to determine if that document accurately characterizes groundfish spawning periods.

The request also asked for a summary of the evidence concerning the impacts of fishing on stocks during peak spawning periods. Besides providing a summary of new information, the report also generated a number of comments, concerns and questions, for example, what is the *best* time to protect spawning fish relative to fishing activities.

Following several discussions over the last few months, the committee agreed to forward the document to the Council. While the RSC recommends the report be used as guidance by NOAA Fisheries and the Council as they consider research projects and fishery actions in the future, members noted that, at the same time, there is no direct cause and effect presented with respect to fishing mortality and fishing activities during spawning. Members added that whether a precautionary approach is taken or not with respect to spawning activities and fishing, those issues are policy matters. With respect to research activities in particular, it recommended that projects be considered on a case-by-case basis and suggested researchers be asked to provide clear justification concerning their need to access closed areas during the peak and/or the spawning season and an assessment of the impacts of their work on spawning activities.

### **Research-related Mandates in the Reauthorized Magnuson-Stevens Fishery Conservation and Management Act (MSA)**

The committee reviewed a document containing new research-related mandates in the MSA. During a wide-ranging discussion the committee identified several areas of interest that will be pursued:

- A need to partner with or develop a relationship with the Scientific and Statistical Committee concerning the task of establishing research priorities;
- Potential uses for the Fisheries and Conservation and Management Fund, including depositing the proceeds from the sale of research-set-aside catches as a possible means of easing the administrative burdens of those programs; and
- Revisiting the circumstances in which days-at-sea are used during research activities.

### **Review of the Summary Report from the April 2007 Haddock Separator Trawl Workshop**

Mike Pol of the Massachusetts Division of Marine Fisheries summarized the report from the conveners of the April 2007 haddock separator trawl workshop. His review included the following points from the report:

- The conveners acknowledge that there will not be one gear design that will work in every situation. Different habitat types (mud, sand, gravel/rocky) will favor different gear types.
- The conveners recommend that a variety of gears be immediately identified for pilot use by the industry and are confident that industry members have the necessary experience to employ the most efficient gears for their harvest areas and bottom types.
- The conveners recommend that the "Eliminator" separator trawl tested by URI and the UNH Rope Separator trawl be considered for pilot-scale use by the industry in the Eastern U.S./Canada Area SAP and/or the Regular B Days-at-Sea (DAS) Program. Data collection on landings, discard and catch rates should be required for participation in these programs to confirm expected gear performance under commercial conditions.

- The conveners recommend further consideration of the DMF Five Point Trawl once additional stability testing is completed.
- The conveners request that NMFS and/or the New England Fishery Management Council develop more specific gear requirements and performance standards necessary to gain authorization for use in a haddock SAP and the Regular B DAS Program.

#### **Update on NCRPP Activities**

Dr Hoey briefed the committee on NCRPP activities, which consisted of receiving (reduced) funding for this year. Existing initiatives, as well as other long-term projects that are channeled through the NEFSC, will likely continue at some level (Northeast Consortium and Massachusetts Marine Fisheries Institute, for example). Although details are not yet final, the committee stated that because of the funding situation, the Northeast may not have as vigorous a cooperative research program as in previous years.

#### **Additional Items Discussed**

- Committee members would like an update following the RSC discussions at Council meetings.
- The committee discussed tracking cooperative research final reports as they are forwarded to the Council and its Plan Development Teams and eventually used in management decision-making.
- The committee also discussed developing a more strategic “steering” work mode, adopting a pro-active approach in advising the Council on larger research issues and possibly reviewing research projects only several times annually in lieu of reviewing them at each meeting.