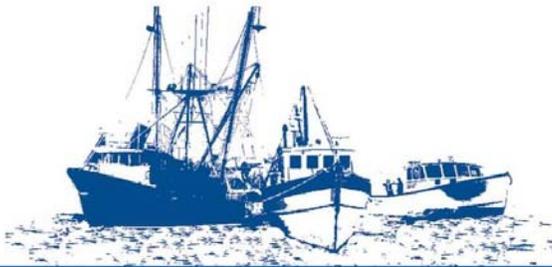


**Marine Resource Education Program:  
Transitioning from a Successful Pilot Project to a National Model  
for Fostering Dialogue and Understanding among Fishermen,  
Scientists and Managers of Marine Fisheries**

Contract No. PZ06082



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**Marine Resource  
Education Program**

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Final Report Submitted to the Northeast Consortium, University of New Hampshire  
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## **Abstract**

The Marine Resource Education Program continues to be recognized as a successful model for educating fishermen in the complex science and management areas that govern their livelihood. Participant evaluations continue to be universally positive and strongly supportive. Key agency partners including NOAA Fisheries Northeast Fisheries Science Center and Northeast Regional Office, and the New England Fishery Management Council, indicate that the program is valuable for quality interaction with the user community, and pledge ongoing participation.

This report covers the work completed in 2006 with support from the Northeast Consortium and NOAA Fisheries Northeast Regional Office/Cooperative Research Partners Program. The first set of modules was held in January in Newport, Rhode Island. NEC funds primarily supported the second pair of modules held in May in Portland, Maine. The trainings were a great success. In January, there were more applications than we were able to accommodate, but the participation in May was lower than expected. This is most likely due to the May 1 start date of the groundfish fishery combined with a great deal of uncertainty about the regulations due to Framework 42 to the Northeast Multispecies Fishery Management Plan.

## **Introduction**

It has been widely acknowledged that the complex system of fisheries science and management is difficult for many fishermen and others to navigate. Fishermen attending fishery management council meetings, serving as advisors to the management processes, or partnering in collaborative research require baseline information to be effective in their roles. In 1996, the New England Fishery Management Council convened a Professional Standards Committee to develop recommendations for responsible fishing practices to be incorporated in management planning. The report from that Committee included a recommendation that training be provided to career fishermen, resulting in a professional certification.

The Marine Resource Education Program (MREP) arose from ongoing conversations among fishery activists in the region to create a professional training program for fishermen in New England. In 2000, the Northeast Consortium funded a pilot demonstration project to test the concept of designing and implementing a series of workshops to increase the number of individuals at work in fisheries that are comfortable navigating the fishery data and management systems. An impressive mix of partners from education, science and the fishing community worked to craft a curriculum and means of delivery. The pilot program, based at the University of New Hampshire, has been enthusiastically received within the region and there is interest in using this program as a model in other regions of the country. Seeking a more sustainable administrative structure, the project partnered with the Gulf of Maine Research Institute to further develop a permanent educational program for the marine resource community.

## **Project Objectives**

The Marine Resource Education Program was implemented with the following specific project objectives:

- Continue the basic components of the current successful program design and create a more sustainable long-term administrative and outreach structure by working with the Gulf of Maine Research Institute, a non-profit organization dedicated to research, education and convening;
- Develop a strategy for a permanent educational program for the marine resource community throughout New England; and
- Explore means of transferring the program to other regions of the country.

The Marine Resource Education Program continues to operate under the following broad objectives:

- To substantially increase the number of individuals at work in New England fisheries that are comfortable navigating the fishery data and management systems.
- To break down historical barriers to cooperation, develop leaders in the fishing industry able to promote trust in the management process, forge new areas of involvement of fishermen in the regulatory process and fully engage fishermen in the development of “best available science”.
- To deepen the familiarity of policy and science professionals with the workings of the fishing community.
- To take effective steps toward bridging the gap between fishermen, scientists and managers by bringing together these three disciplines in a neutral setting where they may explore their common goals and their differences away from the pressure of the regulatory process.
- To develop a strategy for a permanent educational program for the marine resource community throughout New England and explore ways to transfer the “lessons learned” to other regions of the country.

### **Participants**

This project was the result of a strong partnership among fishing industry members and others involved in fisheries issues. The principle partners responsible for executing the project included:

Laura Taylor Singer – Chief Convening Officer, Gulf of Maine Research Institute

The Gulf of Maine Research Institute (GMRI) was the administrative home for this program, and GMRI staff facilitated the logistical chores. Laura was the GMRI staff person responsible for making sure the program ran smoothly and efficiently. She was involved in grant administration, served as a liaison with project partners, and worked on Board communications. Additionally,

Laura worked with the other principles to create and produce outreach materials, such as a new brochure and a logo, to promote the program to potential participants and other interested parties.

Mary Beth Tooley – Executive Director (former), East Coast Pelagics Association

Mary Beth was a founding member of the current MREP program and has been actively involved with all aspects of the program including developing and refining the curriculum, recruiting presenters, facilitating the Management Module and recruiting fishermen participants. In addition to maintaining her current level of involvement, Mary Beth explored the development of an apprenticeship program to expand the number of people needed in the future to facilitate program delivery. Mary Beth is currently the spokesperson for The Small Pelagics Group, an employee of the O'Hara Corporation, Rockland, Maine, and a member of the Marine Advisory Committee that provides advice to the Secretary of Commerce on all living marine resource matters that are the responsibility of the Department of Commerce.

John Williamson – F/V Sea Keeper and  
Fish Conservation Program Manager, Ocean Conservancy

John was also a founding member of the current MREP program and has been intimately involved with all aspects of the program including recruiting the Board of Directors, developing and refining the curriculum, participating in the sessions and recruiting fishermen participants. John remained very active as a principle and invested additional time interacting with the Board for recruitment purposes and to develop new education “products.” He also served as an advocate for developing similar programs in other regions. John served for nine years on the New England Fishery Management Council.

## **Methods**

The 2006 MREP courses were offered in January (Newport, RI) and May (Portland, ME). The curriculum, tailored specifically for fishermen and relevant stakeholder groups, covers two topic areas: a three-day Fishery Science Module, followed by a three-day Fishery Management Module. The Fishery Science Module is designed to provide participants with grounding in the fundamentals of commercial fisheries science. Participants are provided with a basic working knowledge of concepts in population biology and the assessment process, including survey sampling techniques, statistical tools, models and their uses. The science module also covers gear technology, oceanography and emerging ecosystem-based concepts. The Fishery Management Module provides an overview of entities that manage commercial fisheries in New England with an emphasis placed on the structure of the Fishery Management Council and the requirements under the Magnuson-Stevens Act and National Standards. The curriculum covers the components of a management plan, describing the progression of plan development and identifying critical opportunities for participation and input. Please see attached curriculum for January 2006.

The format for both modules is designed to create an open dialogue among participants and presenters and explore ways of fostering cooperation among fishermen, scientists and managers. The number of participants is limited to 20-25 individuals with roughly three quarter's fishermen

and one quarter other interested stakeholders. There is a deliberate process of selecting the participants in each course to obtain a cross-section of communities throughout New England, fisheries prosecuted and perspectives. This creates a lively and thoughtful exchange of ideas and gives all participants exposure to new ideas and issues confronting other stakeholders throughout the region.

## **Data**

As this is not a traditional research program, this section is not applicable to the Marine Resource Education Program. However, beyond the scope of this grant we are interviewing and coding the involvement of MREP alumni in fisheries management. We anticipate that this process will reflect an increase of participants' pursuit of cooperative research opportunities and involvement in the regulatory arena following completion of the program.

## **Results and Conclusions**

Our primary objective, to offer this course and the opportunity to provide fishermen with baseline information about the mechanisms used to manage the resource and govern their industry, has consistently been met. The two January modules both had higher participation than anticipated, an accommodation made due to overwhelming interest in the program. We have consistently been able to achieve a diverse group of participants, crossing fisheries and gear types, as well as representatives from recreational fisheries, the environmental community, and the shoreside service community. NOAA Fisheries has also sent at least one (sometimes two) participant to each module, reflecting the value of the curriculum as a comprehensive introduction to science for non-scientists, and management for non-mangers. Please see attached evaluations from January and May 2006.

### *Comments from 2006 Participants*

*"The [MREP] module certainly offered many suggestions on how to access and affect the "system". Learning that it is a "system" was a very powerful revelation."*

*"... Excellent design and organization. Very powerful messages."*

*"...great dialogue between all the participants and the presenters."*

*"... I was very impressed, and will certainly recommend the experience ..."*

*"All council members and state reps should attend this 3 day workshop..."*

We were also able to underscore the value of our board in guiding program goals and objectives. The board serves a key role as representatives of our target audience. Consistent and ongoing engagement of the board has been an integral part of maintaining continuity during the program's administrative move from UNH to GMRI.

Finally, we have made great strides towards the numerous goals related to expanding the scope and audience for this program. The branding exercise of logo creation and brochure development has improved recognition of the program as an ongoing educational opportunity.

## *Program Administration*

The ninth and tenth MREP courses were offered in 2006. In January, the participants included 21 fishermen (commercial and recreational), and 6 from other arenas, including NOAA Fisheries regional staff, the NGO/environmental community, and shoreside services (please see attached list of participants). In May, there were 12 fishermen and 5 from other arenas. As of May 2006, a total of 223 marine resource professionals have taken part in the course curriculum, either as participants or presenters (or both). Of these, 148 have been active commercial fishermen, trade association leaders or from commercial shore services; 20 recreational and charter fishermen; and 9 environmental advocates. The remaining 46 participants come from a variety of backgrounds in marine trades, research/academia, or fishery science and management positions at the state and federal government level. Participation has been well distributed geographically, with individuals coming from all five New England states; the full diversity of commercial gear-types and vessel size-classes has been well represented; and commercial and recreational groundfishermen, scallopers, herring fishermen and lobstermen have all contributed to the learning environment. In all, eight New England Fishery Management Council members, one from the Mid-Atlantic Council, and two from the South Atlantic Council have taken the courses.

In 2006, we were able to offer the program in an alternate venue (all previous offerings had been held at UNH). One set of modules was held in Newport, Rhode Island and another in Portland, Maine. The program was also offered at a different time of year based on feedback from the Board and user needs. Bringing the program to various communities and during a different time of year has helped to make it more accessible to a broader audience. In November, 2005 a mass mailing was completed to federal groundfish permit holders in New England to make them aware of MREP. The response was overwhelming and there is currently a waiting list for participation. Participant evaluations continue to be universally positive and strongly supportive (please see attached evaluation summary). Key agency partners, NOAA Fisheries Northeast Fisheries Science Center and Northeast Regional Office, and the New England Fishery Management Council, indicate that the program is valuable for quality interaction with the user community, and pledge ongoing participation.

Several new concepts were introduced this year, or emphasized more than in years past. Ecosystem based approaches to scientific research and management were introduced into the curriculum by Mike Fogarty (Northeast Fisheries Science Center), and Paul Howard (New England Fishery Management Council), and Mary Beth Tooley increased the level of discussion around the Atlantic States Marine Fisheries Commission in her introduction to the Management Module. These changes respond to emerging priorities at the federal level, as well as evaluations and requests from participants. Lastly, GMRI has greatly increased the value of the module notebooks provided to participants. Each book includes copies of all the presentations, as well as supplementary reference materials, including Robert's Rules of Parliamentary Procedure, acronym lists, glossary, and contact information for participants and presenters. Participants have indicated that these books continue to be valuable resources long after the program, and a few MREP alumni report that they carry them along to Fishery Management Council meetings for reference.

Finally, we are pleased to report that a recent GAO study (GAO-06-289) cited MREP as a model for stakeholder participation in fisheries management decisions. Representatives from the South Atlantic Fishery Management Council have attended MREP courses in the last year and are interested in replicating the program in their region. Opportunities for replication will be pursued in the future, and lessons learned will be shared with interested parties nationwide as requested.

### ***Board Communications***

The MREP board was re-engaged during this project period through numerous email communications and an annual meeting. Three new members were brought onto the Board, and two stepped off. At the annual meeting, the Board discussed the vision of the program and future initiatives. The Board continues to play an active role in the evolution of the program, with several members serving as facilitators or presenters during the modules, and helping to spread the word to prospective participants. (Please see attached list of current Board members.)

### ***Outreach***

We have focused our efforts on creation and implementation of a highly visible outreach strategy. In the late fall of 2005, GMRI completed the first-ever MREP mass mailing to all federal license holders (roughly 5,000) and we received a tremendous response. We also designed a new logo for MREP and created a brochure that was distributed at various venues, including the Maine Fishermen's Forum, FishExpo, all New England Fishery Management Council meetings, and various fisheries association meetings.

The Marine Resource Education Program, by nature, does not produce results typical of other cooperative research projects. However, the ongoing success of the program continues to be disseminated into the broader fisheries community as a case study for how to foster an educated and active industry. We use our alumni body as a mechanism to reach new groups of fishermen who are leaders in their communities via word-of-mouth, and distribute brochures at relevant meetings and conferences. In 2006, a mass mailing sent brochures to each alum, asking them to promote the program.

### **Partnerships**

MREP's success lies in the ability of the presenters to engage in thoughtful discussion with the participants. We have secured a group of presenters who are experts in their fields, as well as charismatic, approachable individuals who encourage debate and welcome questions. These scientists range from academic faculty to staff from the Northeast Fisheries Science Center. The presenters truly enjoy participating in the program and see it as a unique opportunity to engage with the industry affected by their research. Fishermen are often surprised to

## **Impacts and Applications**

### ***Improving the Relationship between Scientists, Fishermen, and Managers***

The program continues to provide a unique opportunity for fishermen to interact with federal fisheries managers and vice versa. The informal educational atmosphere encourages thoughtful discussion, constructive criticism, and free exchange of ideas. Presenters often stay for a meal, overnight or through the entire course, providing further interaction on both professional and interpersonal levels. This level of interaction builds trust, puts faces to names, and gives participants a starting point when communicating with NOAA Fisheries, the Coast Guard, and other agencies. Managers and enforcement agency staff benefit from increased understanding of the industry they serve.

### ***Outreach to Other Regions and Program Replication***

Though the MREP curriculum and presentation was developed to address specifics of management of New England fisheries, there is growing interest and inquiry from other regions of the country in providing similar programs elsewhere. The program serves as one useful model for development of Council member training consistent with the Magnuson-Stevens Reauthorization, and we have provided curriculum material to NOAA Fisheries staff in Silver Spring. In 2006, two members of the South Atlantic Fishery Management Council audited the program with intent to introduce a similar program in Florida; and we have been invited to present to the South Atlantic Council. GMRI staff also presented the Marine Resource Education Program at the American Fisheries Society annual meeting in September 2007.

A recurring request is that this program be replicated for other fisheries (particularly lobster), or governance structures, such as the Atlantic States Marine Fisheries Commission. Budget and staff limitations, both at GMRI and the federal level, currently prevent those curricula from being developed. Efforts are underway to provide the course curriculum on the web so that users may access it either after or instead of attending the course. We have also provided the course materials to fisheries managers upon request so that they may learn from them, or use them as tools in development of other programming.

While not part of this grant, efforts are underway to provide the course curriculum on the web so that potential users may have access to it. We budgeted for a website and it is currently under construction. Content is being developed, images culled, and we are engaged in discussion with GMRI's web consultant.

## **Related Projects**

MREP was also funded by the NOAA Fisheries Cooperative Research Partners Program this year. NEC and NOAA Fisheries each provided funding for one complete course of the program, including one science module and one management module.

## **Presentations**

No presentations were given during this grant period, but two presentations are planned for summer/fall of 2007.

## **Future Research**

We have had many requests for crustacean science and management modules and are investigating the possibility of developing such a lobster curriculum. Many alumni have asked for advanced courses to refresh or update their knowledge. With the Magnuson-Stevens Act recently reauthorized, this may be an appropriate direction to take in the future.

# Marine Resource Education Project

## Board of Directors 2006

Rodney Avila  
New Bedford, MA  
Background: trawl fisheries, pelagic gillnet and pelagic longline fisheries; New Bedford Family Assistance Center director; NEFMC member.

Vincent Balzano  
Saco, ME  
Background: trawl fisheries, NEFMC Groundfish and Whiting Committee Advisor.

Barbara Bragdon  
Dennis Port, MA  
Background: scallop fishery; NEFMC Scallop Committee Advisor.

David Goethel  
Hampton, NH  
Background: trawl fisheries; NEFMC member; Research Steering Committee member.

Paul Howard  
New England Fishery Management Council  
Newburyport, MA  
Background: Coast Guard; Executive Director NEFMC.

Fred Mattera  
W Kingston, RI 02892

James O'Grady  
Wakefield, RI  
Background: trawl fisheries.

Dr. William Overholtz  
Northeast Fisheries Science Center  
Woods Hole, MA  
Background: Population Dynamics Branch, trawl and acoustic surveys, marine biologist.

Michael Pentony  
NOAA Fisheries, Northeast Regional Office  
Gloucester, MA  
Background: marine policy.

Dr. Andy Rosenberg  
Institute of Earth, Oceans & Space  
Durham, NH  
Background: National Marine Fisheries Service; Northeast Fisheries Science Center; marine biologist.

Mike Sosik, Jr.  
Sturbridge, MA

Background: recreational charter; president of New England Charterboat Captains Association.

Robert Tetrault  
T/R Fish Inc., Marine Trade Center  
Portland, ME

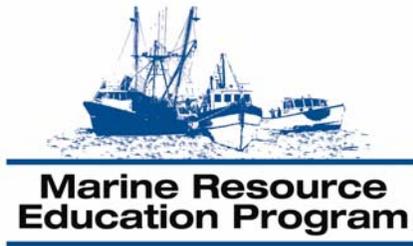
Background: trawl fisheries; product marketing; contractor for the inshore trawl survey.

Mary Beth Tooley  
Camden, ME

Background: herring industry; Executive Director of East Coast Pelagics Association.

John Williamson  
Kennebunk, ME 04043

Background: bottom tending and pelagic gillnet, hook, trap, trawl fisheries; NEFMC member.



**EVALUATION RESULTS**  
**Management Module, January 24-26, 2006**

1. To what extent do you feel:

Not very well      1      2      3      4      5      Extremely well

- a. Mary Beth Tooley's presentation during the morning session of the first day provided a solid overview of the agencies that manage fisheries and their roles?

Average rating: **4.4**

*"... there was still some confusion about the ASMFC and its different role in fisheries management."*

*"Good that it didn't get into too much detail; just enough to wet our palette."*

- b. Allison Ferreira's presentation during the morning of the first day helped you understand the legal framework that governs national fishery management planning?

Average rating: **4.6**

*"I think it was helpful for industry to see the whole process laid out and visually see how complex and involved the process really is."*

*"Very thorough; good communication"*

- c. Deirdre Boelke's presentation during the morning of the first day helped you become familiar with how fisheries management plans are developed by the Council and how to participate in the process?

Average rating: **4.6**

*"... very informative and explained the different levels of the council function and how and where industry can be most useful and productive."*

*"... knowledgeable about their issues, their presentations were almost too broad. I think the info would be more useful and practical if more specific examples and stories were used to illustrate how management has dealt w/ a particular species."*

- d. Allison Ferreira's presentation during the afternoon session on the first day helped you learn how the federal regulatory review process works and what legal requirements must be met?

Average rating: **4.5**

*"Good details."*

- e. Julia Olson's presentation during the morning on the second day provided an introduction to why social sciences are important to fishery management and how this information is used in the fishery management process?

Average rating: **4.3**

*"Everyone seemed to be intrigued with Julia's work..."*

- f. Phil Logan's presentation during the morning on the second day provided an introduction to the role economics plays in the fishery management process?

Average rating: **4.1**

*"Didn't so much enjoy his style; a bit eclectic and hard to follow. Didn't walk away with a clear understanding of economics in fisheries"*

*"Very informative"*

- g. John Williamson's presentation on the morning of the second day provided an overview of the how a Council meeting works and how to effectively participate in the process?

Average rating: **4.6**

*" Very good break down of the elements"*

*"John's presentation was short on useful advice on how to effectively influence the management process ... more useful for him to give concrete examples about how public participation helped improve the council's work"*

*"... John did a good job breaking down the myth of the council."*

- h. Laura Singer's presentation during the afternoon of the second day provided a context for understanding the negotiation process?

Average rating: **4.6**

*“It was a good lesson on what it takes and how to go about successfully negotiating your priorities.”*

*“Good tips on how we can approach the next exercise. Well placed presentation in terms of the 3 day schedule.”*

- i. The Wasota Lake negotiation role play and debrief was useful in learning how to use negotiation techniques?

Average rating: **4.5**

*“Fabulous way to exercise what we learned ...*

*“The intention of this exercise (role-playing) eventually was reduced to making the numbers match an expected sum. It seemed to be in the end more of a game than a learning exercise.”*

- j. Chris Kellog’s presentation on the morning of the third day helped learn about the current issues confronting the Council?

Average rating: **4.1**

*“Very good presenter; even-keeled; clear & concise.”*

*“It was well presented, but time constraints made it difficult to cover all the issues.”*

- k. Lt. Commander Paul Murphy’s presentation on the morning of the third day improved your understanding of the role the US Coast Guard plays in fisheries management and current issues facing USCG?

Average rating: **4.4**

*“Interesting stuff.”*

*“...Learned so much; especially their availability ...”*

- l. John Boreman’s presentation on the morning of the third day provided an overview of the relationship between science and the management process?

Average rating: **4.4**

*“...Good that it doesn't focus on strictly what the science does but how it fit into management which is often hard to understand.”*

*“...Allow more time for him ...”*

- m. Drew Minkiewicz's discussion during the afternoon of the third day provided an overview of the role Congress plays in the fishery management process and an update on the current reauthorization of Magnuson-Steven?

Average rating: **4.6**

*"...Great that it was so informal and open-ended.  
Love the style ..."*

*"...difficult to hear Drew at times ... Some very  
interesting insight."*

- n. Overall, the three-day management module helped to increase your understanding of the fisheries management process and how to get involved in that process?

Average rating: **4.6**

*"It did an excellent job of making the familiar  
understandable."*

2. During the three-day session, how well were you able to get you questions answered, discussed or considered?

Average rating: **4.9**

*"...timing was well thought out, well allocated and  
allowed for plenty of questions."*

*"...great dialogue between all the participants and  
the presenters."*

3. Did your attendance at the management module improve your understanding of the management processes that are used to make decisions in New England fisheries?

Did not improve    1       2       3       4       5       Greatly improved

Average rating: **4.6**

*" There is always more to learn."*

4. Do you feel that the management processes in use are more or less accessible than before you attended?

Less accessible    1       2       3       4       5       More accessible

Average rating: **4.1**

*"More accessible. I know when to start a process  
now without wasting time on the wrong areas."*

*"The module certainly offered many suggestions on how to access and affect the "system". Learning that it is a "system" was a very powerful revelation."*

5. What kind of follow-up information or action would be useful to you? (Please provide your name if you want specific information)

*"... Provide a CD of presentations after the module."*

*"A similar program on the ASMFC for these fishermen who are managed by the commission would be very helpful."*

6. Please rate the accommodations, food and service at the Hyatt Regency during your stay.

Poor      1      2      3      4      5      Excellent

Average rating: **4.9**

7. Please rate your overall experience at the management module.

Poor      1      2      3      4      5      Excellent

Average rating: **4.9**

*"... Excellent design and organization. Very powerful messages."*

*"Very worthwhile experience."*

8. We continue to try to make this program cost effective so we can bring it to more people. If you are a fisherman, would you have attended this program without receiving a stipend?

*"w/out stipend - yes; cover own room expense - probably not"*

*"Yes, if close and I was not working on my boat or gear"*

For others, would you have considered the program if you had to cover your own room expense?

*"3 days off is difficult to cover on my own dollar. I was commuting every day so the room was not an issue."*

Please provide any feedback on this.

*"The stipend is appreciated but not critical to my participation since it is the off-season. I think covering room expenses is necessary to get fishermen from all fisheries."*

9. General Comments (Here's where you can put anything that may be of interest or concern to you. Take your time and let us know how we can improve the program. Feel free to use the other side of the paper as well.)

*"... It would be excellent to have an NGO's perspective. I would like to see a fishing organization present about how they best accessed the management arena."*

*"The program - both modules should be on line. Tape sessions. Make the program (both modules) mandatory for any fisheries manager at state or federal level. Sell program to the States!"*

*"I think the program is excellent ... I gained a lot from meeting the lecturers and participants"*

*"You may want to include fish dealers and net or gear suppliers. They also have an interest in ways management affects us! Thanks again."*



## EVALUATION RESULTS

### Science Module, January 3 – 5, 2006

1. To what extent do you feel:

Not very well      1      2      3      4      5      Extremely well

- a. Steve Cadrin's presentation during the morning session of the first day helped you understand the fundamentals of fisheries science?

Average rating: **4.4**

*"Great. Steve is engaging and knows his stuff."*

*"Excellent speaker!"*

- b. Steve Cadrin's presentation during the afternoon session on first day helped you understand the basic tools of stock assessments, including how stock surveys are conducted?

Average rating: **4.5**

*"Real life examples were helpful but led to discussions more on results and not, as intended, on the process itself."*

- c. Steve Cadrin's presentation during the morning session on the second day helped you become familiar with the models used in stock assessments?

Average rating: **4.1**

*"Some questions of the models and rationale behind their continued use. Validation concerns."*

*"Mr. Cadrin sounded partisan in his presentation never really answering a number of questions asked ..."*

*"Steve was very concerned and informative - the highlight of the science module to me. I wish you could have allowed more time to him."*

*"Great speaker."*

- d. Arne Carr's presentation during the afternoon session on the second day helped you learn how fish behavior relates to gear, recent gear innovations and by-catch reduction developments?

Average rating: **3.8**

*"Arne clearly loves his work - but his presentation could have been shorter."*

*"Videos and presentation helpful."*

- e. David Townsend's presentation during the morning on the third day helped you understand the general oceanography of the Gulf of Maine and George's Bank and how the physical and environmental factors impact the fishery in the region?

Average rating: **4.6**

*"Extremely interesting and engaging"*

*"A lot to digest. Do these factors share a place in modeling and assessment?"*

- f. Mike Fogarty's presentation during the afternoon on the third day provided a context for defining the ecosystem and new approaches to modeling?

Average rating: **3.0**

*"Eco-system based management is the future - and Mike, while he is knowledgeable, was not making a compelling or engaging case about how this should be beneficial to the fishery ..."*

*"I had hoped the discussion would have been more about the uses of ecology in rbm, as opposed to basic ecology itself"*

- g. The discussion on collaborative research during the afternoon of the third day was useful in learning what opportunities are available and how collaborative research is being used in the region?

Average rating: **4.4**

*"It is obviously extremely useful. How well its managed and how transparent and accountable the spending is poses a problem"*

*"I'm in."*

- h. Overall, the three-day science module helped to increase your understanding of fisheries science and how scientists gather data and use it generate models and recommendations?

Average rating: **4.4**

*"The presentations needed to be tightened up ...one person shouldn't be given more than 2 hours to speak."*

2. During the three-day session, how well were you able to get you questions answered, discussed or considered?

Average rating: **4.6**

*"I am looking forward to coming back."*

*"Good feedback after session."*

3. If you are a fisherman, how much did you learn about the scientific processes that impact decisions made about New England fisheries?

Nothing    1    2    3    4    5    A lot

Average rating: **4.4**

4. If you are a fisherman, did your attendance at the science module have an impact on how you perceive the scientific processes that are used to make assessments in New England fisheries? Do you feel that the scientific processes in use are more credible or less credible than before you attended?

Less credible    1    2    3    4    5    More credible

Average rating: **3.9**

*"All council members and state reps should attend this 3 day workshop ..."*

*"I was very impressed"*

5. If you are not a fisherman, how much did you learn about fishermen's concerns and perspectives regarding the scientific processes used to assess fish populations in New England?

Nothing    1    2    3    4    5    A lot

Average rating: **4.5**

6. What kind of follow-up information or action would be useful to you? (Please provide your name if you want specific information)

*"I would like to see more specific information about scallops, life cycle, dredge efficiency, habitat impact, etc."*

7. Please rate the accommodations, food and service at the Hyatt Regency during your stay.

Poor      1      2      3      4      5      Excellent

Average rating: **4.9**

8. Please rate your overall experience at the science module.

Poor      1      2      3      4      5      Excellent

Average rating: **4.4**

*"I found the most beneficial aspect to be the interaction with a variety of stakeholders and among the fishing industry, the variety of gear types and target species"*

*"The three day science module experience was superb ..."*

*"Great experience! Thanks! Please find a way to fit me into the management module."*

*"... I was very impressed, and will certainly recommend the experience ..."*

9. We continue to try to make this program cost effective so we can bring it to more people. If you are a fisherman, would you have attended this program without receiving a stipend?

*"I would have done this without the stipend provided that the class was during the winter months."*

*"I would attend without receiving a stipend. However, I would like my room and meal expenses paid."*

*"I am willing to forgo my stipend if others are."*

For others, would you have considered the program if you had to cover your own room expense?

Please provide any feedback on this.

*"... it might have been hard for my employer -an environmental group to support both my time and expenses ..."*

10. General Comments (Here's where you can put anything that may be of interest or concern to you. Take your time and let us know how we can improve the program. Feel free to use the other side of the paper as well.)

*"Great job. A little hard to hear some of the speakers  
... Suggest a mic."*

*"I think the workshop should only be two days long -  
three days is a long time to be away and to stay  
focused ..."*

*"... speakers should not only be from academia or  
government - but from other folks who are  
knowledgeable - but who might be more engaging."*

*"It would be great to have the collaborative research  
section earlier in the session ..."*

*"GREAT JOB!!"*



**EVALUATION RESULTS**  
**Management Module, May 23-25, 2006**

1. To what extent do you feel:

Not very well      1      2      3      4      5      Extremely well

- a. Mary Beth Tooley's presentation during the morning session of the first day provided a solid overview of the agencies that manage fisheries and their roles?

Average rating: **4.2**

*"The presentation was a bit overwhelming and disorganized, and she moved too quickly."*

*"Mary Beth is very well versed but needs to address the audience free-form, not read the slides to us."*

- b. Allison Ferreira's presentation during the morning of the first day helped you understand the legal framework that governs national fishery management planning?

Average rating: **4.7**

*"Her presentation was both well organized and very needed."*

*"Before this, I needed a map to the process. Now, I have several great maps."*

- c. Tom Nies's presentation during the morning of the first day helped you become familiar with how fisheries management plans are developed by the Council and how to participate in the process?

Average rating: **4.8**

*"Great speaker, dealt directly and fairly with questions, etc."*

*"Wonderful information and well simplified for such a complex topic ..."*

- d. Allison Ferreira's presentation during the afternoon session on the first day helped you learn how the federal regulatory review process works and what legal requirements must be met?

Average rating: **4.6**

*“Very complex. She did very well not taking things personally.”*

*“Allison is great and knows a lot. She also organizes her presentation well.”*

- e. Drew Minkiewicz’s discussion during the morning of the second day provided an overview of the role Congress plays in the fishery management process and an update on the current reauthorization of Magnuson-Steven?

Average rating: **4.6**

*“Very valuable perspectives and honest conversation.”*

*“Very informative and insightful.”*

- f. Phil Logan’s presentation during the morning on the second day provided an introduction to the role economics and social science plays in the fishery management process?

Average rating: **4.2**

*“Interesting that social science and economics plays a role, but it seems relatively low on the scale of priorities. It makes sense, just not obvious.”*

*“Very interesting perspective and very useful”*

*“... His presentation was more of an opinion rather than an educational type. His tone was more defensive and he seemed less helpful than other speakers.”*

- g. Laura Singer’s presentation during the afternoon of the second day provided a context for understanding the negotiation process?

Average rating: **4.4**

*“Difference between positions and interests very important”*

*“A nice simple approach to a difficult process. Very engaging.”*

- h. The Wasota Lake negotiation role play and debrief was useful in learning how to use negotiation techniques?

Average rating: **4.5**

*“I didn't know what I knew about working with others and the negotiating process (more importantly what I didn't know)”*

*“There's nothing like diving in and trying something to learn about the process, the role of personality, etc. We were still talking about it the day afterwards.”*

*“Great useful exercise, but could get as much out of it with less chaos with a shorter, simpler law pattern”*

- i. Chris Kellog's presentation on the morning of the third day helped learn about the current issues confronting the Council?

Average rating: **3.9**

*“Was hoping to see more specifics on future directions of council plans.”*

*“A little repetitive with what we had already heard.”*

- j. Lt. Ryan Hamel's presentation on the morning of the third day improved your understanding of the role the US Coast Guard plays in fisheries management and current issues facing USCG?

Average rating: **4.9**

*“FANTASTIC. Many questions answered, great to meet him.”*

*“I never expected this session to be so enjoyable - Ryan is a great speaker, representative for the Coast Guard.”*

- k. John Williamson's presentation in the afternoon of the third day provided an overview of the how a Council meeting works and how to effectively participate in the process?

Average rating: **4.6**

*“Fabulous overview that I needed, but a little verbose.”*

*“Some very practical tips - and more importantly, the rationale for it, which makes it linger in minds and makes it more effective.”*

- l. Overall, the three-day management module helped to increase your understanding of the fisheries management process and how to get involved in that process?

Average rating: **4.7**

*"This was a GREAT experience for any involved (or getting involved) in this management process."*

*"So many questions and a wonderful jumping point"*

2. During the three-day session, how well were you able to get you questions answered, discussed or considered?

Average rating: **4.6**

*"The forum was very open to discussion despite the schedule."*

*"Basically every question or comment I had was taken."*

3. Did your attendance at the management module improve your understanding of the management processes that are used to make decisions in New England fisheries?

Did not improve    1       2       3       4       5       Greatly improved

Average rating: **4.7**

4. Do you feel that the management processes in use are more or less accessible than before you attended?

Less accessible    1       2       3       4       5       More accessible

Average rating: **4.1**

*"Discovered more ways to access the process."*

*"Very much more accessible. I know which processes I can participate and influence and when."*

5. What kind of follow-up information or action would be useful to you? (Please provide your name if you want specific information)

*"Another program focused on different species such as lobsters would be very helpful. A list of contacts of council members or staff/committee would be helpful."*

6. Please rate the accommodations, food and service at the Portland Regency during your stay.

Poor            1       2       3       4       5       Excellent

Average rating: **4.6**

*"Nicest place I've ever been on government travel."*

*"I would stay here in the future on my own."*

7. Please rate your overall experience at the management module.

Poor      1      2      3      4      5      Excellent

Average rating: **4.7**

*"Extremely informative and I'll recommend it to everyone. I only wish I could have interacted with the people more like in the negotiations."*

*"I'd love to do this a 2nd time in a year when I've had more exposure. Perhaps an advanced management module."*

8. We continue to try to make this program cost effective so we can bring it to more people. If you are a fisherman would you have attended this program without receiving a stipend?

*"Stipend was nice. Being invited would have been enough."*

For others, would you have considered the program if you had to cover your own room expense?

*"I couldn't afford it."*

Please provide any feedback on this.

*"Overall, I think covering at least some expenses in some form will promote attendance."*

9. We distributed copies of the booklet "Understanding Fisheries Management" prior to your participation at MREP.

Did you read the booklet?      Yes      No

If so, did you find it useful?      Yes      No

10. General Comments (Here's where you can put anything that may be of interest or concern to you. Take your time and let us know how we can improve the program. Feel free to use the other side of the paper as well.)

*"The acronym sheet was very helpful. Big versions of the more complex slides would be helpful - Allison's talk had a lot of very complex diagrams that were worth reviewing but illegible. I'm not familiar with Robert's rule of order. Would it fit in this packet - a link?"*

*“Great job! Well organized and useful program.”*

*“Excellent program. I think that any person  
Involved in fisheries in any way, shape or form  
should take the time to attend this program.”*

*“How about an individual from the  
environmental/conservation community. May be  
volatile, but with the right person and approach,  
eyes may be opened or blackened. Seriously, this is a  
novel yet useful understanding of their rationale.”*



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## Marine Resource Education Program

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### EVALUATION RESULTS Science Module, May 9-11, 2006

1. To what extent do you feel:

Not very well      1      2      3      4      5      Extremely well

- a. Bill Overholtz's presentation during the morning session of the first day helped you understand the fundamentals of fisheries science?

Average rating: **4.1**

*"Bill is an extraordinarily talented presenter. He was thorough and patient throughout all his presentations."*

*"Clear progression and concept building"*

*"No more red text on a blue background. Too hard to read. Tough not having the handout to follow along."*

- b. Bill Overholtz's presentation during the afternoon session on first day helped you understand the basic tools of stock assessments, including how stock surveys are conducted?

Average rating: **3.9**

*"Bill's explanation of the basic tools was useful and well done."*

*"A wonderful amount of information in a short time - sort of hard to concentrate on."*

- c. Bill Overholtz's presentation during the morning session on the second day helped you become familiar with the models used in stock assessments?

Average rating: **4.1**

*"This did familiarize me more with the models, but my understanding remains weak."*

*"A lot of info to take in."*

- d. Arne Carr's presentation during the afternoon session on the second day helped you learn how fish behavior relates to gear, recent gear innovations and by-catch reduction developments?

Average rating: **4.0**

*"It was less clear to me how this presentation really related to the purpose of this course. I found it rambling, not focused and it was particularly distracting for the speaker to reveal his opinion about the effects of mobile gear on the bottom and divert discussion in a totally inappropriate way"*

*"Arne had some great examples, info and points. Very interesting to see what gear research has already been conducted."*

*"Well presented and interesting."*

- e. David Townsend's presentation during the morning on the third day helped you understand the general oceanography of the Gulf of Maine and George's Bank and how the physical and environmental factors impact the fishery in the region?

Average rating: **4.8**

*"Dave is a dynamic speaker with a wealth of information. His presentation skills are exemplary and he really tied together some important broad ranging processes."*

*"Very interesting, great info and entertainment. Maybe a little more on biological processes."*

- f. Mike Fogarty's presentation during the afternoon on the third day provided a context for defining the ecosystem and new approaches to modeling?

Average rating: **4.1**

*"He didn't really get the opportunity to do his presentation! He did very well responding to questions that weren't really on his topic, but it was a shame to not bet more out of his expertise."*

*"Would be better to allow more time for Mike's presentation for two reasons: 1) Material justifies it. 2) Frequent delays for management issues are really unavoidable"*

- g. The discussion on collaborative research during the afternoon of the third day was useful in learning what opportunities are available and how collaborative research is being used in the region?

Average rating: **4.4**

- h. Overall, the three-day science module helped to increase your understanding of fisheries science and how scientists gather data and use it generate models and recommendations?

Average rating: **4.6**

*“A really good conference and wonderful experience”*

*“The presenters were well thought out and had fabulous information and presenters.”*

2. During the three-day session, how well were you able to get you questions answered, discussed or considered?

Average rating: **4.4**

*“... A more neutral facilitator might do better as a timekeeper and diplomatically diverting questions/conversations.”*

*“Everyone was fabulous, the only constraint being time.”*

3. How much did you learn about the scientific processes that impact decisions made about New England fisheries?

Nothing    1    2    3    4    5    A lot

Average rating: **4.1**

*“... learned tremendous amounts about the applications of these processes.”*

4. Did your attendance at the science module have an impact on how you perceive the scientific processes that are used to make assessments in New England fisheries? Do you feel that the scientific processes in use are more credible or less credible than before you attended?

Less credible    1    2    3    4    5    More credible

Average rating: **3.9**

*“Less because scientists within the process finally showed me how much we lack in assessments and how long we have to go before we have a decent system.”*

*“While great science is being done, the confidence levels are understandably large and leave a vast area for debate, interpolation and skewing.”*

*“Always believed the processes were credible”*

5. If you are not a fisherman, how much did you learn about fishermen’s concerns and perspectives regarding the scientific processes used to assess fish populations in New England?

Nothing    1       2       3       4       5       A lot

Average rating: **3.5**

6. What kind of follow-up information or action would be useful to you? (Please provide your name if you want specific information)

*“Resources to get more detailed information if interested (websites, journals, books, etc.)”*

7. Please rate the accommodations, food and service at the Portland Regency during your stay.

Poor       1       2       3       4       5       Excellent

Average rating: **4.4**

*“Nicest accommodations I have had on a business trip.”*

8. Please rate your overall experience at the science module.

Poor       1       2       3       4       5       Excellent

Average rating: **4.7**

*“Productive program, thank you.”*

*“Can I do it again?”*

9. We continue to try to make this program cost effective so we can bring it to more people. If you are a fisherman, would you have attended this program without receiving a stipend? For others, would you have considered the program if you had to cover your own room expense? Please provide any feedback on this.

*“... it's uncertain that I would've been able to cover travel and room costs to attend.”*

*“... No, it would not be an acceptable expenditure”*

*“... I would not be able to afford it, despite its worth”*

*"I would attend without a stipend."*

10. General Comments (Here's where you can put anything that may be of interest or concern to you. Take your time and let us know how we can improve the program. Feel free to use the other side of the paper as well.)

*"Having David Goethel as part of the program was most helpful. As moderator, he skillfully translated the science to English and science to management actions. Laura Taylor Singer is an asset to this program - due to her ability to keep al the information on track. She has great organizational skills."*

*"The time had come for this program. This should be a mandatory experience for NMFS, NEFMS and fishing industry members."*