

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Richard B. Robins, Jr.
Chairman

Lee G. Anderson
Vice-Chairman

800 North State Street, Suite 201
Dover, Delaware 19901-3910
Tel: 302-674-2331
Toll Free: 877-446-2362
FAX: 302-674-5399
www.mafmc.org

Christopher M. Moore, Ph.D.
Executive Director

MEMORANDUM

DATE: January 21, 2011
TO: Ecosystem and Ocean Planning Committee (Kray, McMurray, Berg, Augustine, deFur, Luisi, Miko, Munden, Pate, Schafer, Travelstead, Zeman, Saunders, O'Shea)
FROM: Tom Hoff
SUBJECT: February Council Meeting

The Ecosystem and Ocean Planning Committee will meet on Wednesday February 9 from 9:00 to 10:30 AM in New Bern, NC. We have one agenda item. Chairman Robins, at the December Habitat-Ecosystem Workshop, charged the Committee to develop a roadmap that the Council can follow on Habitat and Ecosystem issues. (Attachment 1)

Attachment 2 is a synthesis of the response to the questionnaire evaluating the December workshop.

Attachment 3 is a document containing the major recommendations of each of the December speakers. This document should form the basis for most of our Committee discussion.

Finally, attachment 4 is John Boreman's wrap-up discussion from the workshop.

There are numerous ways the Committee could move forward. The Committee could decide to focus on a specific program as we discussed at the workshop, e.g., deep-sea corals. We could also decide to focus on specific species from our FMP's e.g., summer flounder and their associated HAPC of SAV beds, black sea bass and reefs, tilefish and their HAPCs in canyons, *Alosids* and damns, or ecological interactions of *Loligo* and butterfish. Obviously, there is a lot to discuss.

I look forward to seeing everyone on Wednesday February 9.

MAFMC Habitat/Ecosystems Workshop

Closing Remarks

Rick Robins, Chairman

I would like to commend Gene Kray, Tom Hoff and the Steering Committee for planning and assembling such an impressive group of habitat and ecosystems experts to engage the Council in this workshop. I would also like to thank all of the panelists and participants for their presentations and contributions to the dialogue.

It is clear that the workshop has generated a lot of genuine excitement within the scientific community and, more broadly, both excitement and concern in the stakeholder community.

The workshop is extremely timely, for several reasons:

1. The National Ocean Policy will soon be moving from concept to implementation, resulting in the creation of a regional planning body and vision for the mid-Atlantic region.
2. Offshore energy development promises to generate a steady stream of future initiatives that will require the Council's proactive and constructive engagement in the Coastal Marine Spatial Planning (CMSP) arena.
3. Public interest in the management and conservation of offshore marine habitats is growing and involves other management agencies and legislative authorities, as we saw recently with the proposal to consider protecting the offshore seamounts and canyons under the National Marine Sanctuaries Act.
4. As these national and regional initiatives move forward, it is clear that the Council has an important and expanding role to play with respect to the management of coastal and offshore habitats, and this workshop has revealed opportunities for Council engagement that are both timely and important.
5. At the same time, the Council has already taken an important first step to consider how to move forward with incorporating ecological considerations in our current fishery management plans (FMPs) and how to transition into ecosystem management by appointing an ecosystem subcommittee of the Council's Scientific and Statistical Committee.

The presentations were informative and thought provoking on a wide range of issues. Rather than recapping them, I would like to focus on next steps. As Pat Augustine reminded us throughout the workshop, actions are more important than meeting summaries. The presentations revealed opportunities that the Council can pursue across a wide spectrum of agencies, venues and disciplines. Some of these opportunities are easily executed and others represent long-term opportunities and commitments. In a number of cases, we can work with existing programs to identify data and research needs for our region. Many of these opportunities build on the Council's existing initiatives, particularly with respect to ocean governance and ecosystem management. I believe the Council's role within the fast changing

context of ocean governance goes well beyond simply describing and identifying essential fish habitat. Our challenges and opportunities associated with ocean governance will inevitably require a broader engagement with other agencies and stakeholders through the regional planning body. Additionally, the scientific and technological developments that were highlighted in this workshop, including the application of fine scale ocean observations data to the management of fisheries interactions, and the prospect of a coral assessment for the region, among others, present the Council with a range of opportunities to increase our understanding of the ecological connections between the marine environment and the fisheries that we manage as a Council, and the other activities and interests in the mid Atlantic.

Finally, in terms of where do we go from here, I would suggest that the Council task the Ecosystem and Ocean Planning Committee with categorizing the opportunities presented in this workshop and developing a list of priorities and an action plan for consideration by the full Council by mid 2011.

HABITAT-ECOSYSTEM WORKSHOP, December 13 and 14, 2010 Virginia Beach, QUESTIONNAIRE SYNTHESIS

There were 15 individuals that responded to the questionnaire. There were 7 Council members, 4 Presenters/Panelists, one public, and 3 unidentified. Fifteen responses is a small sample, of the nearly 100 participants, but there were some interesting results and comments.

1. Overall, how satisfied were you with the speakers/presenters?
0 Very Dissatisfied, 0 Dissatisfied, 3 Satisfied, 12 Very Satisfied

2. Did you feel the length of the workshop sessions were too long, just about right, or too short?
1 Too Long, 13 Just About Right, 1 Too short

3. The content of the workshop sessions was appropriate and informative.
0 Strongly Disagree, 0 Disagree, 5 Agree, 10 Strongly Agree

4. The workshop was well organized.
0 Strongly Disagree, 0 Disagree, 4 Agree, 11 Strongly Agree

5. What types of sessions and /or topics would you like to see included at future workshops?
 - More of the same -- just with more time for details and discussion; also include working sessions to begin exploring collaborations between ASMFC and the three east coast Councils
 - Army Corp, EPA, Coastal Zone
 - Involvement of other Agencies: BOEMRE, National Weather Service, Coast Guard, USGS. Consider joint sponsorship of next workshop with ASMFC
 - More interactive
 - Take one day per issue
 - More spatial and regional planning. How MAFMC can help direct NOAA programs (and NGOs) to specifically target our issues

- Predator-prey dynamics, important prey species, predator consumption estimates, overlap and implications for fisheries, strategies to address forage in catch species
- As a starter -- a follow-up to any info-sharing or commitments made by any speaker (presenter)
- Next steps, Gaps, Pitfalls
- Add other groups not here -- federal agencies, industry groups, etc. Add other topics -- listed species, Defense
- Clearer Application of the information/data/research to management actions/decision

6. What did you like most about the workshop?

- John Boreman's Summary -- need to operate with imperfect info -- need global rules to sort out noise from actionable info
- The presentations by John Manderson and Greg DiDomenico
- Discussions, audience, and agenda that pushed beyond FMPs
- New data and analysis
- Well-rounded -- All speakers fully vetted roles/issues/concerns -- possible next steps
- Comprehensive Coverage of research, inclusion of all major partner agencies and organizations, linkages to management and ecosystem approaches, applicability to fisheries management
- The wide scope of presentations, hotel, audio/visual
- That it happened!!
- Presentations were outstanding. The facilities were excellent
- The bringing together of habitat/ecosystem researchers with offshore resource users to identify areas of mutual interest
- Lots of time for Q and A
- Current update on ecosystem science from most involved partners

7. What did you like least about the workshop?

- Too much jammed into too little time
- Too long of days
- One or two speakers went too long
- Less PowerPoints, more interactive
- A lot of good information
- Long days (many presentations)
- A lot of talking at us, not a lot of interactive communication
- Nothing worth noting
- Too little focus on next steps. That was better for FMPs but not so much for others (Sanctuaries, CZM, Chesapeake Bay, etc.)
- The presentation by Monty Hawkins. The workshop was too long

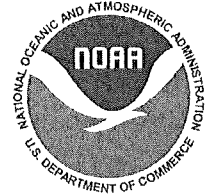
- Disproportionate Amount of Time -- 1 Day for SF/BSB/Scup -- 1.5 Day for ESBM

8. In what ways could this workshop be improved?

- Starter; legible (readable PowerPoints) Focus on practical application -- avoid bringing back some of the less dynamic speakers. Thank you for the hard work to organize this
- Make this a true workshop and not just a presentation
- Shorter talks, more discussion. Schedule workshop #2 to show intent and reaffirm our convictions
- The total Council could have participated, not just the Council Committee
- Perhaps breakout sessions to engage participants in interactive dialogue, more specific discussion of ongoing applications in fishery management
- Distillation of topics; zero in on specific MAFMC species issues
- Fewer speakers
- Shorter days
- Include all three Councils and ASMFC; provide time for brainstorming, work planning sessions



**Habitat-Ecosystem Workshop
Mid-Atlantic Fishery Management Council
Virginia Beach, VA
December 13-14, 2010**



The NOAA Technical Memo is underdevelopment and should be complete by the April Council meeting. The major recommendations from each of the speaker's papers that are in the Tech Memo are included here for your review. Not everyone has their papers completely submitted by the time we produced this for the February Council Briefing Book.

Jessica Kondel – (Acting Regional Coordinator, NOAA/Coastal and Marine Spatial Planning Program) *Implementing the President's National Ocean Policy*

Pat Montanio (Director, NOAA/NMFS Office of Habitat Conservation) *Connecting opportunities in the mid-Atlantic*

Tom Bigford (Chief, NOAA/NMFS/Office of Habitat Conservation/Habitat Protection Division) *This mid-Atlantic effort in a national perspective*

Major Recommendations

- Continue and expand these discussions to include groups and issues not represented at the December 2010 workshop in Virginia Beach, including protected resources, state coastal programs, defense, telecommunications, and ocean energy.
- Pursue opportunities for other sectors or groups to share the roles as host, convener, and facilitator so the MAFMC need not carry an undue burden and their issues are not perceived as receiving undue attention. As two options, consider the opportunity to work with ASMFC's Habitat Committee on a joint meeting in April 2011 and any options to partner with MARCO.
- Identify pilots for specific action in 2011 to fulfill the intent established at the Virginia Beach workshop, using existing knowledge, staff, and funds as we shift from business as usual to an ecosystem approach.

Pete Colosi (Assistant Regional Administrator, NOAA/NMFS/Northeast Regional Office/Habitat Conservation Branch) *Habitat priorities and opportunities from a NMFS regional program*

Major Recommendations

- Invest in the process and context of Essential Fish Habitat (EFH) reviews. Do so with a view beyond the MAFMC's immediate Magnuson-Stevens Act regulatory requirements to designate EFH in its fishery management plans. View it as an investment. While designation will help us manage habitat impacts associated with fishing gear and waterway development activities, it is also a venue of opportunity for the Council to expand into an ecosystem-based design for EFH designations that can benefit fishery management. This can result in more accurate and precise application of EFH in fishery management in terms of the ecological drivers of productive capacity of fish resources. In this regard, this Council could be one of the first to incorporate ecosystem-based components into its EFH work. It can expand our influence with more precision and focus for fishery management, and result in greater influence in the consideration for living marine resource conservation among the various interests in the ocean development arena and the broader ocean use discussion.
- Continue discussing coastal and marine spatial planning (CMSP). NMFS is in this discussion also and will continue partnering with you. We in the Northeast Regional Office (NERO) are involved with the Mid-Atlantic Regional Council on the Ocean (MARCO), the Northeast Regional Ocean Council (NROC), Ocean Special Area Management Plan (Ocean SAMP) coordination with states, and soon will be involved in the Ocean Policy Task Force Regional Planning Bodies for CMSP. It is our job and yours to integrate fish and the longstanding history of fisheries into the considerations of CMSP and the development of marine spatial planning tools.
- It's the Council's insight that counts when framing its habitat agenda. Stay grounded in the perspective of your mandates, and see what opportunities there are for the Council to better managing fishery resources for a healthy fishing industry.

Fan Tsao (Deep Coral Program Specialist, NOAA/NMFS/Office of Habitat Conservation/Habitat Protection Division) *Deep-sea corals and sponges as species of special concern*

Major Recommendations

- Participate in the Deep-Sea Coral Research and Technology Program's research priorities workshop and fieldwork planning for 2013-15. The Council's participation is critical to ensure the fieldwork informs the Council's management needs. The workshop is planned for spring or summer 2011.
- Exercise discretionary authority to designate deep-sea coral protection zones. The New England Fishery Management Council (NEFMC) is actively exploring the use of the MSA Section 303(b) authority to designate deep-sea coral zones for its fisheries, including those in areas that are managed cooperatively with the MAFMC, so this effort can be precedent-setting.
- Use essential fish habitat (EFH) and habitat areas of particular concern (HAPCs) as tools for deep-sea coral management. Several fishery management councils in the U.S. have designated biogenic habitats, such as deep-sea coral and sponge areas, as EFH and HAPCs. This is a tool at the Council's disposal for use in managing fishing impacts and ensuring consultation on potential non-

fishing impacts on deep-sea coral and sponge habitats

- Monitor bycatch and habitat impacts of fishing. Strengthened monitoring of fishing impacts will help fine-tune management measures designed to reduce gear interactions with corals.
- To enable effective and efficient collaboration between MAFMC and NOAA on these and other deep-sea coral endeavors, it would be beneficial for the Council to designate a primary point of contact for coral-related issues.

John Catena (Northeast Regional Supervisor, NOAA/NMFS/Office of Habitat Conservation/Restoration Center) *Habitat restoration interests in the mid-Atlantic*

Lauren Wenzel (National MPA System Coordinator, NOAA/NOS/Marine Protected Areas Center) *Supporting habitat and ecosystem priorities through the National System of MPA*

Major Recommendations

- *Developing a regional MPA network for the Mid-Atlantic.* The MPA Center is working to support regional coordination and networks of MPAs as resources permit through training and small grants. Networks can help protect a wide range of habitats needed by species at different life stages, and can provide opportunities for partnerships and sharing of resources. For example, Friends of Rookery Bay National Estuarine Research Reserve is leading an effort to develop a regional MPA plan for the southeast that will establish common priorities and actions. A similar type of effort could be undertaken for the Mid-Atlantic.
- *Conducting “condition report” workshops for selected MPAs.* The MPA Center has been working with the North American MPA Network (NAMPAN), a cooperative effort among MPA agencies in the U.S., Canada, and Mexico, to develop a “report card” format on MPA conditions, based on the Conditions Reports used by the Office of National Marine Sanctuaries. NAMPAN is interested in extending this effort to the Atlantic Coast, and is interested in identifying potential partners who wish to develop condition reports for their sites as both a monitoring and a communications tool.
- *Mapping human uses of the ocean.* The MPA Center has developed a participatory GIS methodology to map 30 major human activities across three sectors (industrial and military, fishing, and non-consumptive). These maps will contribute to improved management and planning for MPAs and other approaches to coastal and marine spatial planning. The MPA Center has completed human use mapping for some states, and is interested in partnering in the Mid-Atlantic region to continue and complete ocean use mapping.
- *Integrating MPAs with the Integrated Ocean Observing System (IOOS).* The MPA Center is working with the national IOOS program and its regional associations to identify issues for coordination between these two national systems, including how MPAs can be used as platforms for ocean monitoring, the range of observing and monitoring requirements at MPAs, and the ocean monitoring parameters and processes most important to monitoring environmental changes at the national scale. The MPA IOOS Task Team is interested in identifying key monitoring parameters for MPAs at the regional scale, and ways in which climate change monitoring can be

better incorporated into regional and national observing systems.

- *Providing training.* The MPA Center has established a partnership with the Office of National Marine Sanctuaries (ONMS) to bring the international training expertise of the ONMS to a domestic audience. ONMS and MPA Center have the capacity to provide training on adaptation to climate change, developing MPA networks, coastal and marine spatial planning, and other topics.
- *Providing an information clearinghouse on MPA resources.* The MPA Center hosts several databases on MPAs and spatial management, including the MPA Inventory and the de facto MPA Inventory (includes areas conserved for reasons other than conservation, such as safety zones). The MPA Inventory is currently being expanded to include more data on MPA resources and authorities. This information is readily accessible, and can help inform the MAFMC's work on spatial management.

Reed Bohne (North Atlantic Regional Manager, NOAA/NOS Office of National Marine Sanctuaries) *Considering mid-Atlantic sites for sanctuary nomination*

Major Recommendations

- Convene a workshop on canyon and seamount habitat in the Mid-Atlantic and New England regions to assess the status of resources, state of scientific knowledge, resource threats, and conservation alternatives available through the Magnuson-Stevens Fishery Conservation and Management Act, National Marine Sanctuaries Act, and other authorities.
- Support and encourage surveys and research to address fundamental questions regarding the diversity, distribution, and abundance of species living in canyon and seamount features in the Mid-Atlantic and New England regions.

Elaine Vaudreuil (Manager, NOAA/NOS/Office of Ocean and Coastal Resource Management, Coastal and Estuarine Land Conservation Program) *Connecting state coastal land conservation priorities with fishery habitat conservation priorities*

Joe Nohner (NOAA/NMFS Office of Science and Technology/Assessment and Management Division) *Rapporteur for the Policy/Management Panel*

Tom Noji (Director, NOAA/NMFS NEFSC Sandy Hook Lab, NJ) *NMFS Habitat Assessment Improvement Plan (HAIP)*

Major Recommendations

- NMFS, along with the Fishery Councils, should develop criteria to prioritize stocks and geographic

locations that would benefit from habitat assessments.

- NMFS habitat and stock assessment scientists should work together with fishery managers to initiate demonstration projects that incorporate habitat data into stock assessment models, perhaps focusing on well-studied species.

Ned Cyr (Director, NOAA/NMFS/Office of Science & Technology) *NMFS science in support of new management initiatives: perspectives from headquarters*

Mike Fogarty (NOAA/NMFS/NEFSC/Ecosystem Division) *Spatial considerations for ecosystem-based management on the northeast continental shelf*

Peyton Robertson (Director, NOAA/NMFS/Office of Habitat Conservation/Chesapeake Bay Office) *Strengthening science to improve habitat protection and restoration in Chesapeake Bay*

Major Recommendations

- Explore opportunities to better connect the science and management activities of the Chesapeake Bay Fisheries Goal Team, Atlantic States Marine Fisheries Commission, and MAFMC.
- Convene a NOAA habitat mapping consortium/meeting at the NMFS/NEFSC James J. Howard Marine Sciences Laboratory, including representatives of the NOAA Chesapeake Bay Office (NCBO), NEFSC, Hudson River National Estuarine Research Reserve, The Nature Conservancy, and others.
- Improve communication pathways and networks to include all sectors with influence over land and marine habitats and develop better visualization tools describing ecosystems, their inter-relationships, and the specific outcomes that can result from applying ecosystem approaches to management.
- Fully integrate modeling, observations, and research to facilitate scenario testing and tradeoff discussions.

Tom Noji (NOAA/NMFS NEFSC/Sandy Hook Lab) *Habitat science to support mid-Atlantic fisheries management*

Major Recommendations

- Incorporate more habitat information in the fisheries management process.
- Prioritize species and habitats whose management would benefit most from additional habitat-

specific information.

- Establish an improved protocol for providing Northeast Fisheries Science Center habitat-science support to the MAFMC.

John Manderson (NMFS NEFSC/Sandy Hook Lab) *What makes some parts of the ocean sticky to fish? Applications of IOOS to habitat science and regional scale ecosystem management*

Major Recommendations

- Establish the resilience of the ecosystem and keystone populations in the ecosystem as the goal of ecosystem science and management in the Mid-Atlantic Bight. This is a different goal than the central goal of single species fisheries management which is to maximize the abundance of exploitable stocks. Preserving resilience requires managing variance and diversity rather than maximizing the mean. Resilience is provided by different forms of “storage.” For single species populations this storage takes the form of habitat and age class diversity. For ecosystems it is provided by species diversity and the functional redundancy that results from it. Identifying and managing the diversity of habitats and the connections between them that promote resilience to ecosystem keystone populations and others that provide functional redundancy to the ecosystem is central to ecosystem based management.
- The physical and biological data required for space based ecosystem science and management is spatially fine-grained but regional in extent. For water column features it must also be very fine-grained in time. These kinds of data are expensive to collect and there appears to be a lot of redundancy in the data collection and analyses being performed in the region. The council needs to strongly encourage open data and information sharing along with collaborative monitoring efforts in the region. The regional Integrated Ocean Observing System (IOOS) is providing a great deal of information about critical pelagic processes. A collaborative, well-organized effort to identify the bottom data available; to merge it, identify the gaps, and then to systematically address those gaps needs to be strongly encouraged by the MAFMC. These data should be merged with the regional IOOS into an open access portal(s).
- A research set-aside program focused on the goals of ecosystem science and management needs to be established in the region. While there are other parties with stakes in the ecosystem, the fishing community has the most extensive practical ecological knowledge of the ecosystem. Government and academic scientists should be encouraged to openly collaborate with the fishing community to perform the science required to identify processes in the Mid-Atlantic Bight ecosystem that promote the resilience of keystone populations and the ecosystem as a whole.
- Education of the public and stakeholders about the complexity of the ecosystem is absolutely critical for effective ecosystem management.

Dave Packer (NOAA/NMFSC Sandy Hook Lab) *Rapporteur for the Science Panel*

Greg Capobianco (New York Department of State) *Perspectives from the Mid-Atlantic Regional Council on the Oceans (MARCO)*

Jason Link (NOAA/NMFS NEFSC; Member, Mid-Atlantic Fishery Management Council/Science and Statistical Committee) *Start by doing what's necessary; then do what's possible; and suddenly you are doing the impossible (Francis of Assisi)*

Major Recommendations

- Work with the MAFMC (especially the Council's Ecosystems and Ocean Planning Committee) to provide the MAFMC with scientific advice to support and inform the development of the Council's ecosystem level goals, objectives, and policies.
- Identify and describe scientific advice that the MAFMC could use to address and incorporate ecosystem structure and function in its fishery management plans and quota specification process to ensure that the Council's management practices effectively account for ecological sustainability.
- Describe scientific information that the MAFMC could consider so as to anticipate or respond to shifts in ecological conditions (e.g., climate change and other externalities) or processes in its management programs.
- Summarize what other countries and regions are doing to incorporate ecosystem-based fishery management principles in their management plans and programs.
- Describe how ecosystems principles could be used by the MAFMC in the long term to evolve its single-species and multi-species fishery management plans into a regional ecosystem-based fishery management plan.

Monty Hawkins (Charter Boat Captain) *Discovering reef: Possibilities of accelerated and permanent reef-fish restoration*

MAJOR Recommendations

- Interview remaining old-timers to piece together a picture of what once was. Insights will highlight the need to protect what we have and restore what we've lost. Listen attentively and use charts dating to the era for perspectives on:
 - species that once fouled nets and hooks but are now rare, e.g., deadman's sponge;
 - fish populations that have moved from inshore habitats to offshore, with similar impacts on fleet movements and effort and be vigilant for shifts over the years and decades; e.g., extirpation of red hake within 20 nautical miles of shore, white marlin was once caught 4 to 8 miles out and now 60 is caught plus miles, and scup having been a major fishery but now has been absent for 40 years; and
 - insights from fishing techniques and navigation devices used to indicate former reef footprint, even use of rudimentary equipment like a weighted grapple on steel cable to

locate rocky patches by feel.

- Protect remnant hardbottom habitats either with paper protections/regulations or with large boulders.
- When contemplating an action to protect or restore habitat, focus not on the substrate but on the growth that provides habitat. Any rock will work fine – concrete rubble too. Eventually, engineered concrete units to maximize fishery production in a given area could be built.
- Strongly consider transportable reef units sited in areas with abundant growth to gather natural set corals for later transplant.
- Recognize that deep-sea azooxanthellate corals are important to fish populations wherever they now occur or did occur, including all waters.
- The term “high energy environment’ is a scapegoat. There are many corals growing in 25 feet of water and fantastic assemblages in 40 feet of water in the Mid-Atlantic Bight.

Greg Di Domenico (Executive Director, Garden State Seafood Association) *Regulatory requirements that exceed our knowledge of the ocean environment and the impact on the public*

Jay Odell (The Nature Conservancy/Mid-Atlantic Regional Program) *Preparation meets opportunity for mid-Atlantic habitat conservation*

Wilson Laney and Patrick Campfield (representing Habitat Committee, Atlantic States Marine Fisheries Commission) *Atlantic States Marine Fisheries Commission ecosystem habitat programs and collaboration opportunities*

Chris Kellogg (Deputy Director, New England Fishery Management Council) *NEFMC progress and plans to address essential fish habitat protection requirements and ecosystem-based fishery management*

Wilson Laney (DOI/Fish and Wildlife Service, South Atlantic Fisheries Coordination Office) *South Atlantic Fishery Management Council ecosystem habitat programs and collaboration opportunities*

Jim Armstrong (Mid-Atlantic Fishery Management Council) *Rapporteur for the Stakeholders Panel*

John Boreman (Chair, Mid-Atlantic Fishery Management Council/Science and Statistical Committee)

Dave Wallace (Wallace & Associates)

Rick Robins (Chair, Mid-Atlantic Fishery Management Council)