



Maine Fishermen's Forum Special Session

Thursday, February 27, 2003
10:00 a.m. – 4:30 p.m

Using Marine Protected Areas (MPAs) for Fisheries Management in the Gulf of Maine

Major funding provided by: **The Maine Coastal Program**



The 2003 Maine Fishermen's Forum hosted a special session on Thursday, February 27, 2003 entitled "Using Marine Protected Areas (MPAs) for Fisheries Management in the Gulf of Maine". The event was organized by the Maine Sea Grant program along with other partners including the [Maine Fishermen's Forum Board](#), the [Maine Department of Marine Resources](#), the [University of Maine Cooperative Extension](#), and the [Maine Coastal Program](#). This workshop was one of several being organized by the [Northeast Regional Sea Grant Programs](#), part of the nation-wide effort to enhance the fisheries extension component of the [National Sea Grant network](#).

Approximately 120 people attended this all-day session, with an estimated one-third being working fishermen. Others in the audience included representatives of the general public, state and federal agencies, fisheries management councils, non-governmental organizations, environmental groups, and scientists. The session was organized into several presentations in plenary sessions followed by breakout groups tasked with considering next steps in the process of evaluating a possible role for MPAs in fisheries management in the Gulf of Maine. The presentations are available on the [Maine Sea Grant](#) web site, or hard copies can be made available upon request.

The event organizers wish to thank all of the presenters, sponsors, and facilitators that helped make this a successful event.

**Using Marine Protected Areas (MPAs) for Fisheries Management
in the Gulf of Maine**

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Special Session
Thursday, February 27, 2003
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AGENDA

Using Marine Protected Areas (MPAs) for Fisheries Management in the Gulf of Maine

PURPOSE:

1. To update Maine's fishing industry and the public about using MPAs, including no-take marine reserves, as a potential tool for fisheries management in New England.
2. To describe an inclusive process for evaluating and siting MPAs, including no-take marine reserves, in the Gulf of Maine.
3. To spell out the next steps for Maine's fishing industry to be involved in the process.

AGENDA:

10:00 Moderator – Ron Beard, University of Maine Cooperative Extension and Sea Grant

The purpose and organization of this session.

10:05 Welcome – George Lapointe, Commissioner, Maine Dept. of Marine Resources (DMR)

General welcome, discussion of the National MPA advisory committee and how this workshop could be helpful to DMR and Maine.

10:15– 12:00 Morning Session

10:15 Introduction to the issues and terms – Deirdre Gilbert, Assistant to the Commissioner of DMR

A general description of MPAs, no-take reserves, and the executive order—to frame the purpose of the day.

10:30 The state-of-the-science related to MPAs and no-take marine reserves
Dr. Robert Steneck, University of Maine School of Marine Sciences

Presentation on biodiversity, habitat, spawning, nursery areas, and relevant studies on MPAs, including no-take marine reserves.

11:00 Using permanent MPAs for fisheries management: Canadian case studies -
Dr. Ken Frank, Dept. of Fisheries and Oceans, and fishermen from Nova Scotia

Presentation on permanent lobster closures on Brown's Bank and groundfish closures on Emerald/Western Bank in Canada.

12:00 – 1:00 Lunch (provided)

1:00 - 2:15 Afternoon Session (Process for involving fishing industry)

Discussion of the existing authorities currently in place for using MPAs in fisheries management and how new efforts to create no-take marine reserves relate to those jurisdictions.

1:00 Paul Howard, Executive Director, New England Fisheries Management Council – “MPAs presently being used in fisheries management”

1:30 Ben Cowie-Haskell – Stellwagen Bank Marine Sanctuary – Experiences in the Florida Keys and at Stellwagen bank

2:00 Drew Minkiewicz, Maine Senator Olympia Snowe's office – perspectives from Washington, D.C.

2:15 – 3:15 Breakout Sessions

Facilitated groups of 8-12 people will focus on the following questions:

Maine will need a fair and inclusive process in place in order to evaluate the need for MPAs, including no-take marine reserves, as well as possibly siting them in the future.

1. Who needs to be involved in this process?
2. How would this process work?
3. What information would they need?

These breakout groups will be facilitated in order to keep the discussion focused on the questions. Responses will be recorded on flip charts and brought back to the full group.

3:15 Break

3:30 Report from Breakout Groups

With the help of the individual facilitators, Ron Beard will summarize the comments and concerns of the breakout groups.

4:15 A full group discussion of some next steps

4:30 Wrap-up and adjourn

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Using Marine Protected Areas (MPAs) for Fisheries Management in the Gulf of Maine

(notes from presentations compiled by Sheril Kirshenbaum)

George Lapointe – Commissioner of Maine Dept of Marine Resources (DMR)

Mr. Lapointe discussed the National MPA advisory committee and how the Forum workshop could be helpful to DMR and Maine. He spoke about problem involved in MPA development including lack of communication and trust among different groups and the need for real stakeholder involvement. He said it should be recognized that MPA proponents are interested in closing significantly large areas over significant periods of time, and that MPAs could critically impact Maine's fishermen. He said that modeling processes to optimize where MPAs might be implemented were useful, but would not necessarily be successful in bringing people to the table to take part in discussion. Most people will find it difficult to focus on the MPA issue until the conversation moves from academic to actual proposals. Mr. Lapointe emphasized the need to be honest in the scope of what a proposed MPA would try to accomplish, and consider how enforcement would be possible. In his conclusions, Mr. Lapointe stressed that the development of any successful MPA will require working with everyone who is interested in a specific proposal.

Deirdre Gilbert – Assistant to the Commissioner of DMR

Ms. Gilbert provided an introduction to the issues and terms of marine management. She defined an MPA as "any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resources therein" (Executive Order 13158, May 2000). More succinctly, her definition was "an area of special protection in the marine environment." She discussed the goals and types of MPAs and the meaning of the Executive Order. Ms. Gilbert spoke about the challenges and opportunities of MPA establishment and questioned how MPAs may be evaluated and coordinated. She emphasized that there are currently MPA planning activities taking place at multiple levels (federal, state, and local) and that partnerships across fields and among stakeholders will be necessary for success.

Dr. Robert Steneck – *University of Maine School of Marine Sciences*

Dr. Steneck spoke about the state-of-the-science related to MPAs and no-take marine reserves. His presentation included biodiversity, habitat, spawning, nursery areas, and relevant studies on MPAs. He began by asking if there is a problem with current conditions in the marine realm and questioned whether MPAs can help. "Do MPAs work and should we use them?" Dr. Steneck discussed America's fishing heritage and the decline in abundance of North Atlantic fish and global fisheries landings over time. He provided examples such as the decreased average sizes of cod and other fishes. The value of local fisheries today is in marine invertebrates which are abundant abundant

today but were formerly prey for targeted fish species. He explained that globally, most MPAs enhance fisheries within their borders through increased biomass. Some reserves have spillover of adults to areas adjacent to the protected areas. However, larger size of harvested species in closed areas can have a large reproductive contribution to adjacent regions as a source of larvae. Dr. Steneck also explained that some stocks do not show much response to closures such as Atlantic Cod on Georges Banks and sea urchins. Perhaps a new stable state has been reached with a lower stock level. Not all protected areas work and MPAs cannot solve every problem. Factors such as climate, environment, and area are not controlled by MPAs. Dr. Steneck stressed compliance among users is extremely important. Finally, there are local and regional effects on the fishery and biodiversity. According to Dr. Steneck MPAs should be part of comprehensive ocean use planning which includes wild harvest, production (aquaculture) and no take MPAs. For the latter, the following criteria must be met. Goals must be identified, such as whether the MPA is to manage fisheries or preserve biodiversity, and stakeholders must be involved.

Dr. Ken Frank – *Dept. of Fisheries and Oceans* : Using permanent MPAs for management: Canadian Case Studies

Dr. Frank spoke about area closures. Seasonal closures have been in practice for a long time including spawning closures and year-round closures. Such action reduces total catch and spreads catch throughout the year reducing pressure on stocks. Success is difficult to evaluate although evidence shows that recruits are protected by closures. The “Haddock box” closure in 1987 and the lobster fishing closure on Brown’s Bank were discussed. Compliance among users is important and a closed area may be working in a way that has not been expected. The fishing industry is still supporting the haddock closure and there has also been an increase in other species in the area. In this example, there has been an increase in juvenile fish and adult stock is expected to increase. Spillover occurs and there has been a shift in location of juveniles. Dr. Frank pointed out that in cold systems, responses might be slower than in tropical areas. However, he noted that displacing fishermen creates problems. The benefits of closures may not be realized due to the effects of other fisheries.

Richard Nickerson – *Lobster Fisherman from Cape Sable, Nova Scotia*

Mr. Nickerson spoke about the Brown's Bank lobster closed area in the Bay of Fundy providing the fishermen’s perspective. According to inshore lobster fishermen, recruitment is good inshore and they support the closed area. The closure was originally implemented in the 1980's to provide a buffer between the inshore and offshore lobster fleets and hopefully some increased recruitment of larval lobsters throughout Nova Scotia and the Bay of Fundy. When part of the Bay is closed for lobsters only, it can’t be controlled and enforced without the support of fishermen. Mr. Nickerson said that the term “MPA” has a different meaning to fishermen, government officials, and academics. There are a lot of unknowns.

Brian Giroux – *Scotia Fundy Mobile Gear Fishermen’s Association*

Mr. Giroux discussed closing areas for protecting groundfish(haddock) reproduction. This concept is agreed upon locally. The area Mr. Giroux discussed is on the east side of Nova Scotia. Understanding of spawning behaviors is complicated and makes optimum area closure identification difficult. Evidence suggests that it is best to close an area to all activities that impact the species that needs protection. It is important to consider that closure decisions affect people’s businesses and how displacement of fishing effort could have a significant negative impact on them. It is almost impossible to change regulations once they are in place. Mr. Giroux recommends there be dialogue about how to get information from users confidentially in order to obtain data and make the sound decisions. Goals should be set from the beginning, science must be good, and stakeholders need to be involved.

In the Western Bank/Emerald Bank closed area example, fixed gear groundfish longliners tried to use the closed area concept to exclude mobile gear fishermen. This eventually backfired and the area was closed to all groundfish gear types. There is no lobster effort in this closed area. Mr. Giroux concluded that all gear types should be excluded from a closed area to promote fairness and compliance unless all gear types agree on selective closures.

Paul Howard – *Executive Director, New England Fisheries Management Council*

Mr. Howard discussed the use of MPAs in fisheries management. He began with a review of the New England Council's successful efforts to rebuild overfished groundfish stocks, but added the good news was being overshadowed by lawsuits and press coverage focusing almost exclusively on litigation.

Pointing out that MPAs are not a new concept, Mr. Howard described the various types of MPAs, and explained their historic use in New England fisheries. Examples provided included extensive areas of Georges Bank that have been closed to most types of mobile fishing gear for almost 10 years and more recently area closures across the Gulf of Maine. In particular, he discussed the remarkable progress in rebuilding the scallop and groundfish resources as examples of how MPAs have been used in combination with other measures. In addition to the protection of fisheries resources, coordination with other agencies could promote integrated and more comprehensive protection of designated areas. In place of developing new MPAs, he suggested strengthening the existing MPAs in New England and coordinating such efforts with other authorities to enhance their effectiveness. He proposed the formation of an MPA committee or regional advisory board to accomplish that coordination. MPAs, he said, should not necessarily be viewed as no-take zones and should be based on a defined need.

Ben Cowie-Haskell – *Stellwagen Bank Marine Sanctuary*

Mr. Cowie-Haskell spoke about experiences developing the Tortugas Ecological Reserve and the ongoing work at Stellwagen Bank National Marine Sanctuary. Both were created under the National Marine Sanctuaries Act. In the 1995 draft management plan for the Florida Keys National Marine Sanctuary, the Tortugas reserve was not designed with the right input so it was tabled; however, the final management plan of 1997 indicated that the reserve would be redesigned with input from all affected stakeholders. The 1997 plan established the nation's first network of zones of varying protection levels. Tortugas 2000, the process to design the ecological reserve, began in 1998 with the formation of a 25 member working group composed of various stakeholders including 4 fishing representatives. The working group's purpose was to recommend a reserve boundary based on the best available science. The facilitated process they followed involved establishing goals and objectives, learning about the ecology and uses of the area, establishing criteria, developing a range of boundary alternatives and finally recommending a preferred boundary alternative. The reserve's objectives were to protect biological diversity and enhance fisheries. The working group came to full consensus in May 1999 and the reserve was established in July 2001. The zone network in the Florida Keys National Marine Sanctuary, including the Tortugas reserve, is being monitored to determine its effectiveness. The Sanctuary has a dedicated enforcement squad who patrol the area on a regular basis.

Stellwagen Bank Sanctuary is a "work in progress." It was created in 1992 to preserve, protect, and enhance biodiversity of the 842 square mile area. Currently, the management plan is being revised. Mr. Cowie-Haskell concluded that MPAs are working in both northern and southern regions of the East Coast but that they can work better through better siting, and multiple objectives (habitat protection, biodiversity protection, fisheries replenishment, and research/monitoring) can be achieved while minimizing impacts to users.

Drew Minikiewicz – *Maine Senator Olympia Snowe's Office*

Mr. Minikiewicz discussed perspectives from Washington DC. He provided a review of lawsuits regarding ground fish protection and MPAs. Ocean Commissions look at laws and make recommendations to congress. There is currently no legislation in the senate to deal with MPAs directly.

**Summary of Feedback from Discussion Groups
at the 2003 Fishermen's Forum
(compiled by Tracy Hart, Maine Sea Grant)**

I. Purpose of Discussion:

To devise a fair and inclusive process for fishing interests to be involved in and provide input to MPA processes in the Gulf of Maine.

II. Three Discussion Questions: If there will be a process for considering MPAs in the Gulf of Maine for fisheries management...

- 1) Who needs to be involved in the process?
- 2) How would you see the process working?
- 3) What info would participants need along the way?

III. Who needs to be involved?

Most frequently listed:

- Direct stakeholders--whomever is most affected. Anyone with a vested interest.
- Industry input essential. Essential for anyone who makes a living from the resource to be involved (all fishing industry sectors; more than just fishermen--fuel, ice, seafood industry, etc.)
- Public resource so everyone needs to be at the table (the public).
- All users of the resource
- Communities need to be involved start to finish. Do NOT discount the role and value of communities. Empowerment of communities, towns, tax payers
- Federal, regional/state agencies/managers: NOAA, DMR, the Councils
- Who should be involved and who gets involved will depend on the area proposed and the type of MPA proposed
- Local and national representatives (for credibility)

Others:

- | | |
|--|---------------------------------------|
| • Historical fishing folks--those who have fished the area but are no longer fishing | • Advocacy groups & Environmentalists |
| • Recreational fishermen | • Scientists |
| • Recreational users | • Enforcement People |
| • Fish consumers | • Social scientists |
| • NGOS | • Business interests |

IV. How should process work?

Establish Need and Data:

- First, determine and prove the need for the MPA. Look at data from everyone (fishermen, scientists, etc.)
- Information needs to be shared among all groups
- Develop partnerships (academia and university, sea grant-like funding) for data gathering and computation, and make data more available.
- Need planning documents identifying where MPAs are targeted with rationale for why these particular areas were chosen.

- Before talking about siting new MPAs, should evaluate what is already out there in the Gulf of Maine.
- Need economic assessment and plans for development, implementation, administration, enforcement, and monitoring
- Need socioeconomic study to estimate the value of MPAs to society.
- Stakeholders need access to all data--both that which supports and does not support MPAs.
- Need concrete examples, not theory.

Develop definitions, goals, and purpose early on:

- **Define the purpose, goals, and objectives clearly and early on**--what are you trying to protect? Who is included? There is a need to define the purpose or objectives of a proposed MPA right up front--for fisheries management tool? For promoting biodiversity? For the establishment of wilderness areas?
- Define MPA early in process
- Define goals and agree on them.
- A broad first approach to I.D. and agree on principles.
- Set realistic timelines and triggers
- Define criteria for decision-making and process for decision-making early on.
- The process should not focus only on fisheries management. MPAs are not only for fisheries management. Also look at MPAs for pollution, research, etc. Integrate the process and look at comprehensive ocean management or MPAs will never reach the goal.

Build Common Ground, Knowledge, and Trust

- Education: Develop common knowledge base early in process between participants and stakeholders.
- Need to build trust in order for people to come together to discuss this concept. Will take time--many barriers to trust have to be brought down first. People need to become comfortable with the process to be able to move into working relationships
- Sharing of issues and concerns by each group at the start of the process.

Ideas for Process

- Use a more community-based or regional approach, rather than federal. Ex. local clam closures are MPAs
- A constructive, multi-stakeholder process with multiple forums and where participants are empowered to contribute to the larger process.
- There needs to be a coordinated approach among all of the federal/state/regional management and regulatory agencies that are involved.
- Develop a round table to talk about a process for considering MPAs--a process to determine the process. Perhaps a Governor's Commission to gather people's input and develop a process. Begin with a forum where various interest groups come together to talk about MPAs, ID principles and objectives, and share viewpoints about the pros and cons of establishing MPAs.
- **Tier Approach:** start very broad and inclusive because everyone with interest needs to be involved. As progress to talk about specific areas, get more area specific and include fewer people--local stakeholders and those most affected by the outcome of the process. Model suggested by the Canadians seems appropriate.
- Plan for not everybody being able to attend meetings, but plan a way for their input to be gathered.
- Establish an oversight committee made up of representatives of vested groups
- Manageable number of people in process

- Could begin with an existing situation such as Taunton Bay. Develop an outline for a process that can be applied to other areas.
- Zone-specific processes
- Local control, regional stakeholders, driven by the big picture (ex. lobster zone councils)
- Funnel information up so others become interested in area-specific discussions and will be supportive of local processes.

Fisheries Management & Fishermen Involvement:

- Fishermen need to be engaged in the process from the beginning. They are the most affected. Involve fishermen in research and pay them. Establish process for fishermen to share information and data along with scientist. Programs such as adopt a boat and Sea Grant Extension activities could provide avenues for fishermen involvement.
- Fishermen-based monitoring of sites is needed.
- Consider broad implications for fishermen from the beginning of the process. Need to consider displacement of effort, the social/env./resource impact of movement of fishers to other areas. Consider subsidies; consider trickle-down effects of socio-economic conditions in communities, benefits and equity issues of MPAs.
- Use the New England Fisheries Management Council structure to proceed when considering MPAs for fisheries management purposes. This would involve developing criteria for designating MPAs (stock assessments, habitat evaluation, etc.)
- MPAs should be looked at as a fisheries management option.

Safeguards & Evaluating Effectiveness:

- **Need to be able to evaluate the effectiveness of MPAs that are established and a process to modify or discontinue an MPA if it is not accomplishing its goals.** There should be guarantees up front that if MPAs are established they will be monitored and their life spans evaluated. Must have flexibility for changing areas that are closed--timing and boundaries

V. What information would participants need?

- Get baseline first! To track if and how things change.
- USE the data that fishermen collect. Info is already being gathered but not used
- Go port to port to get info straight from fishermen.
- Need practical and usable science (not so inaccessible, as science often is for the public)
- Need "trusted" scientists
- Ecosystem and biology info
- Need to build a historical perspective of the area. Go back 50, 100, or more years. Compare with current use.
- Look at historical ecological/population data and political histories
- Legitimacy to seeking fishermen's knowledge. It is not just anecdotal information.
- Information available should be used to promote awareness.
- Provide a construct for existing information. Use, compile and analyze existing info.
- Assess what is working and what is not working and why for existing MPAs
- Need to analyze and understand concept comprehensively. What should we be looking for in designing an MPA?
- Info on monitoring methods.
- Economic impact study
- Review of existing effects of closed areas.
- Investigate alternatives to meet goals, supported by the data
- Prove that MPAs meet the goals established

- Need for stakeholders to understand all impacts to ecosystems. It is not just fishermen that cause negative impacts to marine ecosystems.
- What is enough? How many and how big?
- Conservationists need to present a unified understandable plan
- List of substantiated benefits
- Location of benthic habitats, spawning areas, etc.
- Seafloor habitat data available to all participants
- Understanding of goals, criteria

Summary of needs/concerns:

- Tensions currently exist. Fishermen are asking, where's the fire? Why rush?
- The idea of permanent protection is hard to sell. Proponents of MPAs might consider more flexibility in closing and opening areas and just leaving a few for lasting protection.
- Fishermen need to develop a more unified voice, across fisheries
- Expectation needs to be that something will happen. If fishermen and others take time to participate, they need to be able to expect that their participation and input will actually be taken into account.
- Fishermen and other groups are discussing MPAs independently of each other. Many groups proposing MPAs are not engaging fishermen.
- Critical to cross boundaries between groups
- Inclusive process
- Significant amount of distrust and walls being built. Need more honesty.
- Confusion about how MPAs relate to the no-take controversies and fisheries management.
- Closures are already in place. MPAs will produce more closures. That is where the block in discussion comes in.
- MPAs are one tool among many for comprehensive ocean management.

Main Points:

- Needs assessment--evaluate what we have in place already
- Inclusive
- Prove need and effectiveness.
- Develop a way to evaluate and change MPAs if necessary from the beginning.
- Look at examples from other case studies and learn from those experiences.
- Define goals early
- Process with multiple forums to empower all participants to participate constructively
- **Develop mission, define measurable goals, criteria for success and thresholds, outline benefits, and define duration**
- **Need flexibility, coordination, and cooperation**
- MPA is one tool among many
- Consider impacts on all parties. Understand broad implications for fishermen from the beginning
- Integration between extraction, pollution--all the impacts--if the process is to have success
- **Community or regional approach. Communities are key stakeholders and sources of information (community-based resources management)**
- There is no one example that you can take off the shelf and apply--no one size fits all. Need new approach here.
- **Solid baseline information that includes ecological and socio-economic info**
- Those who earn living from the resource need to be included
- **Build trust** between groups and proceed with openness and honesty

- **Include direct stakeholders.** Fishermen should be a source of info for identifying MPAs; recognize fishermen as scientists
- Who pays for process, development, implementation, administration, monitoring, and enforcement and for how long
- Define the problem, are MPAs part of the solution?
- Create a safe haven for exploration of information, needs, and goals before decisions are made
- Look at the issue comprehensively in a coordinated manner regardless of the purpose for the MPAs

Next steps:

Bring stakeholders together

Bring to the local level

Provide comment on the definition of lasting protection

Create a centralized location for current information/status of issues that everyone can access

Evaluate how current MPAs (closures) are working or not working (science)

Governor level commission to develop a state-level strategy for what an MPA process should be

Finalists* Invited to Serve on the MPA Advisory Committee

* These finalists have been invited to serve pending completion of required security clearances, and final review and appointment by the U.S. Secretary of Commerce.

The national MPA Initiative must involve people within and outside of government. Executive Order 13158 mandates that a marine protected area advisory committee be established to provide expert advice and recommendations to the Secretaries of Commerce and the Interior on the development of a national system of marine protected areas.

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GLOSSARY OF TERMS

Marine Protected Area:

Executive Order 13158 defines marine protected areas (MPAs) as:

"any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."

U.S. MPAs may include national marine sanctuaries, fishery management zones, national seashores, national parks, national monuments, critical habitats, national wildlife refuges, national estuarine research reserves, state conservation areas, state reserves, and many others. MPAs have different shapes, sizes, and management characteristics, and have been established for different purposes.

Biodiversity: the variety of life, often divided into three hierarchical levels: genetic diversity (genetic variation within an individual species), species diversity (the number of species within an ecosystem) and ecosystem diversity (a variety of different types of ecosystems)

Ecosystem: An integrated system of living species, their habitat, and the processes that affect them.

Ecosystem approach (to management): Fishery management actions aimed at conserving the structure and function of marine ecosystems, in addition to conserving the fishery resource

No-Take Marine Reserve: An area that is completely protected from all extractive activities. Within a reserve, biological resources are generally protected through prohibitions on fishing and the removal or disturbance of living and non-living marine resources, except as necessary for monitoring or research to evaluate reserve effectiveness. No-take marine reserves are one type of marine protected area.

Stakeholders: Refers to anyone who has an interest in or who is affected by the establishment of a protected area.

Ocean Zoning: A process in which a protected area is divided into discrete zones and particular human uses of each zone are permitted, often with conditions such as gear limitations in fishing and waste discharge prohibitions in tourism.

The definitions included above are derived from available references and are provided as a resource for this forum. The organizers recognize that some of these terms and definitions are the focus of considerable debate.

For More Information

Federal Marine Protected Areas website: <http://www.mpa.gov>

“This World Wide Web site -- mpa.gov -- provides information on marine protected areas (MPAs) as required by Executive Order 13158. It is jointly managed by the U.S. Department of Commerce and the U.S. Department of the Interior.”

The National Marine Protected Area Center's Training and Technical Assistance Institute: http://www.csc.noaa.gov/cms/cls/mpa_training.html

“The MPA Training and Technical Assistance Institute will improve the skills and effectiveness of federal, state, local, tribal, and nongovernmental coastal resource managers, strengthening their ability to protect and enhance the nation's MPAs.”

MPA News: <http://depts.washington.edu/mpanews>

“MPA News, the newsletter on planning and management of marine protected areas, serves the global MPA community with news, views, analysis, and tips gathered from experts around the world.”

National Marine Sanctuaries:

Channel Islands National Marine Sanctuary: <http://www.cinms.nos.noaa.gov>

Information on the process used to create marine reserves in the Channel Islands

Florida Keys National Marine Sanctuary: <http://www.fknms.nos.noaa.gov>

Information on the Dry Tortugas process

Stellwagen Bank National Marine Sanctuary: <http://stellwagen.nos.noaa.gov>

Information on the current management plan review

Regional Fishery Management Councils:

Information on the activities of some of the fishery management councils working on MPAs:

New England Fishery Management Council: <http://www.nefmc.org>

South Atlantic Fishery Management Council: <http://www.safmc.net>

Pacific Fishery Management Council: <http://www.pcouncil.org>