

Marine Protected Areas and Cold Water Corals

Background Information for 'Managing Our Nation's Fisheries II'

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Marine protected areas (MPAs) have been an important tool in managing fisheries and other human activities for resources in estuarine, nearshore, and offshore areas in need of protection (USCOP, 2004). The majority of MPAs in the U.S. are multiple-use sites, meaning they allow fishing, boating, diving, and other recreational and commercial activities to some degree. MPAs can vary in regulations from limiting some uses to restricting all activities. Types of restrictions include commercial or recreational fishing, structural changes to the sea bed, vessel traffic, dredging, dumping, or oil and gas exploration. Marine reserves (no-take areas) are one type of MPA; most MPAs are not marine reserves. In fact, less than 1 percent of U.S. waters are no-take areas. Some MPAs are set aside temporarily or permanently, and have regulations year round or seasonally.

Marine protected areas are internationally recognized as a means for conserving natural, historic, and cultural marine resources. Historically MPAs have been established to meet a number of goals, including conservation of biodiversity and habitat, increased scientific knowledge, educational opportunities, enhancement of recreation activities, and managing fisheries (NRC, 2001). Through protection of marine species and habitats, MPAs can provide social and economic benefits, including sustainable recreational and commercial use of marine resources. Integrated networks of MPAs can help individual MPAs achieve conservation goals, providing additional social and economic benefits. Although like most conservation endeavors, achieving the varied benefits of MPAs usually involves costs or tradeoffs.

MPAs are not a panacea for all problems. Within the context of fishery management the cost of restricting fishing activity in one area will result in additional effort in other areas. The successful design and implementation of MPAs relies on setting clearly defined objectives and encouraging stakeholder participation in the planning, design and implementation process.

The use of MPAs is an important topic of national discussion, and how best to implement MPAs as a conservation measure can occur through many venues. This issue has been broken into four general discussion topics. Each of these topic areas will be discussed by the Panel. Some background material on each issue is provided below. Additionally a summary of how each of these issues is addressed in recent past or current legislation or in the two ocean commission reports is provided in Table 1.

Establishing an MPA Network

An Executive Order (EO13158) issued in 2000, requires the Department of Commerce and Department of Interior develop a scientifically based, comprehensive national system of MPAs. They shall coordinate and share information, tools, and strategies, and provide guidance to enable and encourage the use of the following in the exercise of each agency's respective authorities to further enhance and expand protection of existing MPAs and to establish or recommend new MPAs, as appropriate. This Executive Order defines a marine protected area 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." (EO 13158: Sec.2 (a)). It directs federal agencies to work with government and non-governmental partners to increase protected and sustainable use of ocean resources by strengthening and expanding a national system of MPAs.

The Executive Order was consistent with recommendations from the United States Commission on Ocean Policy and Pew Oceans Commission in terms of improving marine managed areas, with better coordination and integration with the existing network of marine managed areas.

The MPA Executive Order 13158 does not designate any new sites, create any new federal authorities, change any state, local or tribal authorities, or focus only on no-take areas. The National Marine Protected Areas Center, based within NOAA and in partnership with the Department of the Interior, is charged with implementing the Executive Order.

Discussion items:

- *What network of marine protected areas is already in place? What are the potential benefits of an effective national system of marine protected areas?*
- *The U.S. Commission on Ocean Policy states that the nation needs a coordinated, comprehensive monitoring network that can provide the information necessary for managers to make informed decisions, adapt their actions as needed, and assure effective stewardship of ocean and coastal resources. How can this be applied within the realm of MPAs?*
- *How can the MPA Center best provide support through funding or other avenues on a regional basis?*
- *The Pew Commission Report concludes that benefits to major regional fisheries can only be expected from marine reserves if a substantial amount of area is designated as a reserve. Should there be national guidance on this issue?*

MPAs as a vehicle for implementing EFH and HAPCs

The first efforts to integrate habitat considerations into the fishery policy go back to passage of the Magnuson-Stevens Act (MSA) of 1976. Those efforts have evolved through the federal Habitat Conservation Policy, to the 1986 amendments to the Magnuson-Stevens Act. The 1986 amendments gave regional councils new authority and responsibility to include “readily available” habitat information in all fishery management plans, and opportunity to recommend habitat management measures for federal or state activities that could adversely affect fishery resources. The 1996 Sustainable Fisheries Act amended the MSA to include new provisions to identify and conserve Essential Fish Habitat (EFH) in fishery management plans (FMPs). Congress defined EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (16 U.S.C. 1802(10)).

The MSA requires that the eight regional Councils designate EFH and mitigate any adverse impacts from fishing on this habitat to the extent practicable. The regional fisheries management councils have the primary authority to develop marine protected areas that restrict fishing in Federal waters (3-200m from the shoreline) of the United States. Regulations developed by the councils are subject to approval by NOAA Fisheries acting on behalf of the Secretary of Commerce. NOAA Fisheries can also restrict fishing activities if actions taken by a regional council are insufficient to meet legal requirements for fisheries management. States can also develop regulations (e.g., MPAs) in federal waters to restrict activities of fisheries managed by that state, in the absence of a federal FMP.

Some debate has occurred whether the language within the MSA for EFH adequately provides protection for marine habitats. EFH guidelines apply to FMP managed species, and may not fully conserve habitat important to non-managed species that are nonetheless critical components of the food web, and potentially necessary to maintain sustainable fisheries and healthy ecosystems. One venue to provide more focused habitat protections within EFH is through Habitat Areas of Particular Concern (HAPC). NOAA Fisheries regulations encourage Councils to identify HAPCs as subset areas within EFH that: (1)

provide important ecological functions; (2) are sensitive to human-induced environmental degradation; (3) are stressed by development activities; or (4) are a rare habitat type. 50 CFR §600.815(a)(8). However, to date, less than one percent of the areas initially designated as EFH has been further characterized as HAPC.

Legislation amending MSA to address habitat conservation and protection has been previously introduced in both the House and Senate specific to changing EFH language (i.e. Snowe's S2066, Rahall's HR 4706). Although none of these bills was adopted in the 106th-108th Congress, concerns remain regarding habitat conservation and marine protected areas.

Discussion items:

- *Are the current guidelines for EFH designation and conservation necessary and sufficient?*
- *Should national guidance be provided for HAPCs as a subset of EFH, within the Magnuson reauthorization?*

Overlapping jurisdictions and authorities

There remains some confusion and concern, with respect to authorities for establishing MPAs. The Councils historically have had authority to utilize MPAs as a fishery management tool since the inception of the Magnuson-Stevens Act. Other authorities for establishing MPAs include: the National Marine Sanctuaries Act and legislation authorizing National Parks and National Wildlife Refuges, as well as many state laws. Congress may need to review the MPA issue and possibly develop legislation which clarifies jurisdictional issues and administrative procedures for cases where jurisdictional overlap is a concern (Madsen, 2004).

Numerous federal, state, tribal, and local agencies have jurisdiction over the various types of marine managed areas in the U.S. There are more than 1,500 such marine managed areas in the U.S.

Discussion items:

- *What jurisdiction should regional management Councils have over the implementation of MPAs?*
- *What would be the best method to coordinate management of multi-jurisdictional MPAs?*

Best Means to Preserve Coldwater Coral Communities in the US

In the midst of pending rulemaking to protect marine habitats, criticism has been brought forward that current efforts to identify and describe EFH proceed too slowly to offer immediate protection to some vulnerable habitats. Current vulnerable marine areas of concern are cold water coral and sponge communities which are found throughout the United States' EEZ. Both the US Commission on Ocean Policy and the Pew Oceans Commission reports recommended both the continued study and protection of coral ecosystems, including deep sea corals.

In 2004, Senator Lautenberg introduced a bill, referred as the Deep Sea Coral Protection Act (H.R. 4897, S. 1953), which intended to further protect and restore cold water corals and sponges in federally-managed waters lying within the U.S. EEZ. The main provisions of the Act, which would supersede any EFH or HAPC processes under the Magnuson-Stevens Act, included measures that would:

- Require the Secretary of Commerce to implement a precautionary and preventive policy to conserve deep sea coral and sponge ecosystems as public trust resources of all Americans;

- Establish Coral Management Areas within the EEZ to protect known deep sea coral concentrations by prohibiting the use of mobile bottom-tending gear (described further in Attachment 1);
- Confine existing commercial bottom trawling and dredging activities to their current ecological footprint;
- Declare the rest of the waters in the EEZ as a Coral Study Area in which research and mapping of coral and sponge ecosystems would occur to identify additional Coral Management Areas for protection, and to determine whether or not it would be safe to allow bottom trawling or dredging to expand into portions of the study area; and
- Provide more funds for corals research and mapping, including for international projects.

In 2004, the NOAA Fisheries was petitioned to promulgate immediate rulemaking to protect deep-sea coral and sponge habitats in the EEZ. The petition asserts that deep-sea coral and sponge communities are not adequately protected under existing fishery management plans. The petition seeks a regulatory program that includes increased mapping of areas containing deep-sea coral and sponge habitat; identification and description of such areas as both EFH and HAPCs; increased protective measures for these habitats, including implementing additional closed areas, and increased enforcement and penalties; enhanced monitoring infrastructure for deep-sea corals and sponges; and increased funding for further research to identify, protect, and restore damaged deep-sea coral and sponge habitats.

In December 2004, President Bush announced an U.S. Ocean Action Plan in response to the U.S. Ocean Commission on Policy report. The Action Plan describes a national intent regarding conservation of marine habitats, with a goal to ‘promote coral reef and deep coral conservation and education.’ The Action Plan provides further commitment of the government to research, survey, and protect deep-sea coral communities.

Other ongoing actions to protect deep-sea coral communities include:

- The New England Fishery Management Council and the Mid Atlantic Fishery Management Council recently approved an amendment to the monkfish management plan that places a moratorium on dredging in certain submerged canyon areas off the northeast coast of the US. that contains vast quantities of deep-sea corals. NOAA is currently working with the regional fishery management councils to provide technical assistance to facilitate council consideration of measures to conserve and manage deep-sea coral communities. The Administration encourages all regional fishery management councils to take action, where appropriate, to protect deep sea corals when developing and implementing regional fishery management plans.
- The North Pacific Fishery Management Councils recently approved alternatives for EFH and HAPC to protect deep-sea coral communities in the Gulf of Alaska and Aleutian Islands.
- NOAA is the primary Federal agency involved in two international deep-sea coral exploration missions for 2005, which will be conducted jointly with several European Union nations.
- NOAA is in the process of developing a Status Report on Deep-Sea Corals in the United States Exclusive Zone, which is expected to be published in 2005.

Discussion items:

- *Currently deep sea corals are not included in the U.S. Coral Reef Task Force, which is currently focused on tropical reefs. Should deep sea corals get the same consideration through policy and potential funding sources? What is the best way to implement this?*

- *The Deep Sea Coral Protection Act, introduced in 2004, would have superseded an ongoing EFH process. Are measures to protect deep sea corals, outside of the regional fishery management council process necessary?*
- *What can the regional councils do to further protect deep sea coral communities?*

References

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Pew Oceans Commission. 2003. *America's Living Oceans: Charting a Course for Sea Change*, May 2003. (online <http://www.pewoceans.org>).

Stone, R.P. and Malecha, P.W. 2003. "Deep-Sea Coral Habitat in the Aleutian Islands of Alaska." Oral Presentation given at the Second International Symposium on Deep-sea Corals, Erlangen, 2003.

U.S. Commission on Ocean Policy. 2004. *An Ocean Blueprint for the 21st Century*, Final Report. <http://oceancommission.gov>.

Table 1. Habitat protections through EFH, HAPC, MPA and specifics to deep water corals

Issue	U.S. Commission on Ocean Policy	PEW Oceans Commission	S 2066 Snowe Fishery Conservation & Management Amendments Act of 2004	S 1953 Lautenberg July 2004; HR 4897 Greenwood Nov 2003 Deep Sea Coral Protection Act	HR 4749 Gilchrest Magnuson-Stevens Act Amendments	HR 4706 Rahall Fisheries Management Reform Act	S 482 Collins Fisheries Science and Management Improvement Act of 2003	-- NMFS Fishery Conservation & Management Act Amendments of 2003
Establishing MPA Network	Supports Marine managed areas, and the network provided in the executive order.	Supports networks of marine reserves		Supports no-take marine reserves where coral is found				
EFH/HAPC			Redefines HAPC as a subset of EFH. Changes definition of EFH provisions.		Redefines HAPC as a subset of EFH. Changes definition of EFH provisions.	Changes definition of EFH provisions.	Redefines HAPC as a subset of EFH	Changes definition of EFH provisions.
Overlapping jurisdictions				Supersedes EFH/HAPC process in some regions				
Coldwater coral community protection in U.S.				Requires immediate fishery closures in coral/sponge areas.				