

Production of Information to Advance Magnuson-Stevens Reauthorization Efforts

MARINE PROTECTED AREAS

By Gil Radonski

Introduction

Marine Protected Areas¹ (MPAs) have been in existence for nearly 30 years. More than 1,500 such areas with restricted activities exist in the United States.² MPAs have been referred to as: reserves, sanctuaries, refuges, preserves, reserves, marine managed areas, and special management zones, to name a few. What has emerged in the past two decades, of considerable importance to marine anglers, is the designation of large expanses of ocean designated as "no take" zones. With the issuance of Presidential Executive Order 13158³ by President Clinton in 2000, and reaffirmation of that order by President Bush in 2001, MPAs have become a focus of ecosystem-based management, fishery management and controversy. MPAs, when judiciously employed in the context of a defined fishery management objective and been availed to due process, comports well with the conservation ethic of the marine recreational fishing (MRF) community.

Although MPAs have long been used as a fishery management tool by federal and state resource agencies, the nation still lacks a consistent and straightforward way to describe the many types of MPAs occurring in our waters or to understand how they affect marine ecosystems and associated human uses. For example, the official programmatic names of many United States MPAs rarely reflect their actual purpose, use restrictions or impacts on users. Consequently, MPAs having similar names may, in fact, differ fundamentally in their effectiveness in protecting the habitats and resources they encompass.⁴

The issue of marine protected areas (MPA) has become a perplexing issue for the marine recreational fishing community. While recreational fishermen, their attendant NGOs and the industry that serves them have an indisputable record of fostering conservation and environmental issues to insure the long term stability of the fishery resource, they are confused with the recent spate of state and federal MPAs which are *de facto* "no-fishing zones." Such MPAs are interpreted as arbitrary measures that result in

¹ Executive Order 13158 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."

² Explore the Inventory, <http://www3.mpa.gov/exploreinv/explore.aspx>

³ Marine Protected Areas, Presidential Documents, Executive Order 13158 of May 26, 2000

⁴ A Proposed Functional Classification System for Marine Protected Areas in the U. S., MPA Federal Advisory Committee, Inaugural Meeting, Washington, DC June 23-24, 2003

denying recreational fishermen access to marine fishery resources. Increasingly, MPAs are seen as rekindling the historic debate of the definition and application of conservation: sustainable use versus protectionism. The marine recreational fishing community generally supports the concept of MPAs but views with great skepticism the arbitrary application of no-take zones as manifestation of protectionist conservation. The MRF community aligns with the sustainable use conservation paradigm.

A Brief History

Evolving public policy to protect marine common property resources will benefit from a review of the history of how public policy for the protection of terrestrial common property resources developed. The history of protected public lands⁵ policy development in the United States spans more than 125 years. From conceptualization to legislation, regulations and implementation, public land policy has resulted in a vast infrastructure that is regarded as a national treasure. Marine or terrestrial, the issue of governance covers the spectrum of sustainable use to protectionism. For public protected lands these polar definitions have been successfully brought to compromise around the issue of public access. As the MPA issue matures it is clear that public access and use of the common property fishery resource are pivotal issues.

There is a 125+ year history of protecting common property fish and wildlife (including habitat), forest, and cultural resources in the United States. Over that period the policy was debated at all levels and was codified into law and tested in the courts. The policy, largely applied to terrestrial venues, has a high public acceptance and is the basis for the establishment and operation of The National Park System (NPS), the National Wildlife Refuge System (NWR) and the Wilderness Preservation System (WPS). The basic policy which accommodates both preservation and wise-use (sustainable-use) protects natural and historic objects and wildlife while allowing use that does not diminish those resources for future generations.

With the exception of National Forests (timber production), public lands protection was achieved by removing commercial exploitation of renewable natural resources. Generally hunting and fishing are permitted activities at protected public lands. These activities are regulated to comport with the charter of the protected area and have demonstrated over time that sustainable fish and wildlife resources can be maintained.

The Department of the Interior has applied the principles of land-based protected areas such as National Parks and NWRs to existing, functional MPAs. There are 72 National Parks on the coast (ocean and Great Lakes, 40 parks include 3.2 million acres of ocean) with 35 million acres of prime coastal habitats and 4,700 miles of shoreline. Recreational fishing is allowed in all but one park, commercial fishing is allowed only by statute or tribal treaties. One hundred sixty-two of the 542 NWRs include or affect adjacent marine resources, 13 NWRs protect 2.6 million acres of coral reefs and adjacent open water habitats.

Congress and the executive branches will not proceed on the MPA issue as they would have a century or even half century ago when a few strong-willed individuals politically muscled resource issues with a sense of righteousness. The contemporary political style, in the sense of participatory government, calls

⁵ Public protected lands include National Park and Monuments, Wildlife Refuges, National Forests and Bureau of Land Management (BLM) lands.

for enjoining all the stakeholders to arrive at compromise solutions. To be successful in the oceans governance arena the MRF community must broaden and better articulate its position on MPAs to attract other environmental/conservation-oriented NGOs.⁶

The concept of MPAs is sound and comports well with the historic goals and ethics of recreational fishermen. The history of recreational fishing is replete with innovations and practices that demonstrate the basic understanding of the importance of habitat and fish population structure to the sustainability of the sport. Anglers understand the importance of protecting spawning season and habitat, controlling harvest through size and possession limits and the impact of their presence on the marine environment. Those elements arrived at empirically, have been confirmed by fishery scientists and form the basis of modern scientific fishery management. Anglers accept the application of such scientific based management restrictions to discrete terrestrial areas such as parks, refuges, wilderness areas and forests demonstrating that they can pursue their sport and are good resource stewards at the same time.

Ocean Governance and MPAs

Government, federal, state and territorial, regulates the use of marine resources subject to the public trust doctrine. This doctrine provides that government managers are the exclusive public trustees and stewards of the marine resources, which belong to the citizens. Governmental infrastructure dealing with marine resources has come under scrutiny recently under the broad banner of “oceans governance.” The issue of MPAs is inexorably linked to the oceans governance movement. The Commission on Ocean Policy’s Report⁷, The Pew Oceans Commission⁸ and the Bush Administration response⁹ each addressed the MPA issue. Further, the Marine Protected Area Federal Advisory Committee, created by E.O. 13158 provided advice to the Secretaries of Commerce and Interior on establishing and managing a national system of MPAs.¹⁰

The generalities of the MPA issue raised in those reports are best captured in the Oceans Commission’s final report chapter 6, page 103; “Marine protected areas are one type of management tool the federal government can employ for locations and resources in estuarine, nearshore, and offshore areas in need of protection. A broad umbrella term, marine protected areas are created for many different reasons, including conserving living marine resources and habitat, protecting endangered or threatened species, maintaining biological diversity, and preserving historically or culturally important resources. These areas have also been recognized for their scientific, recreational, and educational values.

“Marine protected areas can vary from restricting all activities to limiting only some uses. Examples of activities that might be restricted include oil and gas exploration and production, dredging, dumping, certain types of vessel traffic, fishing, and placing structures on the seabed. Marine protected areas can

⁶Radonski, Gilbert C. 2003. Marine Recreational Fishermen and Oceans Governance. Special report to the American Sportfishing Association.

⁷ U.S. Commission on Ocean Policy. An Ocean Blueprint for the 21st Century. Final Report. Washington, DC, 2004 ISBN#0-9759462-0-X

⁸America’s Living Oceans, Charting a Course for Sea Change, Pew Oceans Commission, May, 2003

⁹U.S. Ocean Action Plan, The Bush Administration’s Response to the U.S. Commission on Ocean Policy, September, 2004

¹⁰ Protecting America’s Marine Environment: A report of the Marine Protected Areas Federal Advisory Committee on Establishing and Managing a National System of Marine Protected Areas June 2005

be set aside permanently or temporarily and can be implemented either seasonally or year-round. Even within a marine protected area, a particular activity may be allowed in one part of the area but not in others. Marine protected areas can be established and managed by a variety of agencies at the federal, state, territorial, tribal, and local levels, pursuant to a number of authorities.”

For the MRF community there are two inexorably linked facets of importance in the oceans governance issue: **the fishery resource and access to it.**

MPAs and Fishery Issues

“Marine Protected Areas (MPAs) are internationally recognized as a means for conserving natural, historic, and cultural marine resources. Through protection of marine species and habitats, MPAs provide social and economic benefits, including sustainable recreational and commercial use of marine resources and enhanced research and educational opportunities. MPA networks can help individual MPAs achieve conservation goals, providing additional social and economic benefits. Like most actions, achieving benefits usually involves costs or tradeoffs. In the case of MPAs, some human activities may be prohibited or restricted in order to achieve the benefits of establishing an MPA.”¹¹ This statement is accurate and is the basis of reluctance on the part of the marine recreational fishing (MRF) community to unequivocally embrace MPAs. It is about the tradeoffs and prohibited or restricted human activities. The controversy is not about MPAs but about how, where and under what conditions and legal authority they are deployed.

MPAs are employed to help protect and restore sustainable fisheries, to conserve biodiversity, to protect cultural heritage sites and protect and enhance marine habitats. Generally, the MRF community will accept restricted access to and use of marine areas and resources if it can be demonstrated that their presence and activities conflict with the goals and objectives of the MPA. For decades anglers have accepted scientifically-based management measures that restrict angling such as season closures, size limits, bag (possession) limits, catch-and-release and gear restrictions. The arbitrary designation of a marine area as a “marine reserve” or “no-take area” is anathema to the MRF community. Recreational fishing interests contend that the need to establish a marine preserves should be dealt with through the Magnuson-Steven Fishery Conservation and Management Act¹². That Act requires using the best scientific information available and has a proven system for public input and involvement (“due process”).

Although the concept of MPAs is sound there is apprehension in the MRF community regarding the application of MPAs. The apprehension centers about access to and use of fishery resources in the context of preserves (a.k.a. “no-take” marine reserves). That is not to say that MRF interests categorically reject preserves but rather the seemingly arbitrary exclusion from the common property fishery resource. To be excluded from the common property fishery resource demands that the excluded be provided evidence that their presence and activity are untoward and have available to them due process to challenge the proposed restriction.

¹¹ MPA Center (http://www.mpa.gov/information_tools/archives/benefits.html)

¹² Magnuson-Stevens Fishery Conservation and Management Act, Public Law 94-265, As amended through October 11, 1996

MPAs can benefit the MRF community and fishery resources if all stakeholders are identified and participate from the very beginning to ensure that the candidate MPA has:

- ? clearly stated goal and objectives;
- ? effective planning and design;
- ? regular monitoring, assessment, enforcement, and community education; and.
- ? has been arrived at through application of due process.

Chosen judiciously and designed correctly, MPAs can be useful for fishery conservation/management purposes as a part of a fishery management plan and could be implemented with the endorsement of the recreational fishing community if they accommodate the following:

(A) There must be a clear identification of the conservation problem. Traditional fishery management practices (gear restrictions, quotas, bag limits, closed seasons etc.) have been evaluated and do not provide sufficient conservation and management remedies to the affected stocks of fish.

(B) The proposal for a specifically identified MPA must include measurable criteria to determine the conservation benefit to the affected stocks of fish and contain economic impact information on how the proposed actions would affect fishermen.

(C) Any closed areas (preserves) within a MPA should be established with a sunset provision. On that date-certain, the zones will automatically reopen unless there is scientific information that the closure should remain in effect and those findings are communicated to the public through a process integrating substantial public review, input and comment.

(D) The plan provides a timetable for periodic review of the continued need for any closed area at least once every three years and an estimated time-line for removing the closure.

(E) The closed area is no larger than that which is supported by the best available scientific information.

(F) The MPA is sufficiently funded to enforce its mandate.

In short, the MRF community will support MPAs (with or without preserve components) that are stakeholder inclusive, utilize the best scientific information available, are part of fishery management plan, employ accepted fishery management techniques to resolve angler induced problems, have a strong due process component and are funded to carry out its mandate.

Applying MPAs to Fishery Management

Establishment of “no take” MPAs (nMPAs), a.k.a. marine reserves, may have numerous beneficial purposes. However, as a tool for fisheries management, where optimal and/or maximum sustainable yield is the objective, nMPAs are generally not as effective as traditional management measures, and are not appropriate for the vast majority of marine species. This is because most marine species are far too mobile to remain within an nMPA and/or are not overfished. For those few species that could receive benefit, creation of nMPAs would have an adverse effect on optimal management of sympatric forms (i.e. similar species).

According to a 2002 report by Dr. Robert Shipp, chair of the marine sciences department at the University of South Alabama, eight percent of U.S. fish stocks of the Exclusive Economic Zone (EEZ) are reported to be experiencing overfishing. The finfish stocks included in this number are primarily pelagic or highly mobile species, movement patterns that don't lend themselves to benefit from nMPAs.

Thus a very small percentage, something less than 2 %, depending on mobility potentials, is likely to benefit from creation of these no-take zones. However, many of these species have come under management within the last decade, employing more traditional fishery management measures, and are experiencing recovery.

MPAs (both “no take” and other types) can serve a positive function as a management tool in protecting spawning aggregations, in helping recovery of severely overfished and unmanaged insular fish populations with little connectivity to adjacent stocks, and in protecting critical habitat which can be damaged by certain fishing methods.¹³

Economic Implications

Shipp’s paper cast significant doubt on broad application of nMPAs (marine reserves). The importance of measurable, enforceable management goals and objectives in the establishment of an MPA can not be overstated. The economic implications are enormous. Southwick¹⁴ reported that every million dollars spent by anglers supports 13.1 jobs. Based on this, by closing sportfishing in the Channel Islands National Marine Sanctuary, businesses directly supporting anglers will lose 163 jobs. Even worse, 726 jobs related to boating and boating accessories businesses would be lost. More jobs will be lost within the businesses that supply and service the companies patronized by anglers.

Southwick focused on economic value and the disruptions marine reserves can inflict. The broad economic implications go beyond lost jobs. Loss of access to a common property resource to the individual angler must be considered as well as the cost of creating non-functional MPAs. Non-functional MPAs are characterized by MPAs that do not achieve their stated goal and objectives. This is generally the case where no (or insufficient) funds are appropriated to carry out the monitoring and enforcement activities.¹⁵ The net result is a “paper” MPA. Many marine protected areas exist on maps and in legislation but offer little real protection in the water. Often referred to as “paper parks”, these sites represent a failure of efforts to protect resources and ecosystems. They are surprisingly common. Estimates of the percentage of some countries’ MPAs that exist primarily on paper range as high as 80-90%.¹⁶

The economic impacts of marine reserves can be measured and they are significant affecting a broad range of fishing industry sectors. The imposition of marine reserve status should be a detailed process where probable gains are compared to predictable economic losses. To do this requires that the MPAs perform their intended function. The sad fact is that in many cases anglers are shut out of paper MPAs.

¹³Shipp, Robert L. No Take Marine Protected Areas (nMPAs) as a fishery management tool, a pragmatic perspective. A Report to the FishAmerica Foundation. 2002.

¹⁴ The Economic Effects of Sportfishing Closures in Marine Protected Areas, The Channel Islands Example. Robert Southwick, Southwick Associates, Inc. March 2002

¹⁵ The classic example is creating an MPA with an Executive Order (EO). EOs do not have attendant appropriations.

¹⁶ MPA news, Vol. 2, No. 11 June 2001

Recommendations

Current federal legal authority to establish marine preserves principally lie in the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265, as amended through October 11, 1996) and the National Marine Sanctuaries Act (as amended by Public Law 106-513, November 2000). The Magnuson Act is limited to fisheries under a fishery management plan and the NMSA is limited to designated marine sanctuaries.¹⁷ Language that provides reasonable and responsible guidelines for the use of marine protected areas as a fishery management tool and provides for the involvement of the public in the development of these areas and ensures that recreational fishing will only be curtailed if other fishery management measures have failed to address a specific resource decline needs to be included in these bills.

To this point the discussion of MPAs has dealt with federal authority. Clearly the issue involves the various states where the controversy and solutions are parallel. The full complexity of the MPA issue is explored in the June 2005 report “Protecting America’s Marine Environment: A report of the Marine Protected Areas Federal Advisory Committee on Establishing and Managing a National System of Marine Protected Areas”.¹⁸ The report to the Secretaries of Commerce and Interior satisfies the E. O. 13158 requirement to provide expert advice and recommendations on the development of a national system of marine protected areas (MPAs). A National System of MPAs potentially has value in dealing with MPAs across governing authorities, provide uniformity and minimum standards and nomenclature.

The Marine Protected Areas Federal Advisory Committee (MPAFAC) consists of 30 people with diverse interests, backgrounds and perspectives, including non-federal scientists, resource managers, and other interested persons and organizations. The MPAFAC met over the course of the last two years at locations throughout the US, visited several marine areas, and received detailed presentations by representatives of local, state, tribal and national organizations and agencies as well as extensive public comment. The report is comprehensive and provides guidance and insight into the complexity of MPA planning, implementation, monitoring and funding. The weakest part of the report is the ancillary manner in which it dealt with access and use of marine resources. In the glossary access is defined as: “Appropriate access and uses: Entry to and uses of an area considered for or designated as an MPA, within the framework of sustainable use, and consistent with the goals and objectives of a particular MPA. This does not de facto exclude or include any particular use.” The report is also at odds with the Magnuson-Stevens Act calling for the use of “the best available scientific and experience-based

¹⁷ The national marine sanctuaries program is administered by the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). NOAA has designated the following sanctuaries.

- Monitor (NC)
- Gray's Reef (GA)
- Cordell Banks (CA)
- Fagatele Bay (American Samoa)
- Florida Keys (upper and lower units) (FL)
- Olympic Coast (WA)
- Channel Islands (CA)
- Thunder Bay (MI)
- Flower Garden Bank (TX)
- Hawaii Islands (HI)
- Key Largo (FL)
- Lou Key (FL)
- Monterey Bay (CA)
- Steliwagon Banks (MA)
- Gulf of the Faralones (CA)

¹⁸ http://www.mpa.gov/fac/pdf/mpafac_report_06_05.pdf

knowledge” in establishing a national system of MPAs. Experience-based knowledge, or anecdotal information, is not permitted by the Magnuson-Stevens Act. The Act requires the use of the best scientific information available and the use of quantifiable parameters to manage fisheries.¹⁹

Although the MPAFAC report is outside Magnuson-Stevens Act reauthorization it is an issue that deals with ocean governance and access and use of marine resources. In some measure the MRF community should provide comment on the report to the Secretaries of Commerce and Interior.

¹⁹ <http://www.st.nmfs.gov/st1/econ/cia/natstand-final.pdf>, page 24214, Comment 9