The State of the Nation's Marine Managed Areas: The emerging national picture of place-based conservation in U.S. waters

Marine Managed Areas

Marine managed areas (MMAs) are special places in ocean, coastal, and estuarine ecosystems where vital natural and cultural resources are given greater protection than in surrounding waters. MMAs, and other forms of place-based management in the ocean, have been used in the U.S. for more than a century. Currently, there are more than 1,500 such MMAs in U.S. marine waters and the Great Lakes, managed by hundreds of distinct federal, state, territorial, and tribal authorities. This document presents an initial summary of the use of marine managed areas in U.S. waters.

U.S. MMAs are as diverse as they are numerous, differing in terminology, purpose, jurisdiction, allowable uses, and level of protection. MMAs range in overall management approach from relatively rare "no-take"

Marine Managed Areas at a Glance

- There are more than 1,500 MMAs in the U.S.
- 90% allow access and multiple uses, such as fishing.
- Most are established and **managed by state** agencies.
- Most are permanent and provide year round protection.
- Most were established since 1970.

areas that prohibit all extractive uses, to the more common "multiple use" areas in which a variety of consumptive and non-consumptive uses are allowed and often encouraged.

To be considered an MMA, a site must meet the following criteria:

- area: have legally defined boundaries
- *marine*: be an area of ocean or coastal waters or the Great Lakes
- reserved: be established by or currently subject to site-specific regulation
- *lasting*: provide year-to-year protection for a minimum of two consecutive years
- *protection*: have existing regulations that afford increased protection specifically to natural and/or cultural resources and qualities within the site

Presidential Executive Order on Marine Protected Areas

The growing use and challenges of place-based management in the ocean led to Presidential Executive Order 13158, which was signed in May 2000. The Executive Order seeks to enhance the management, protection, and conservation of U.S. marine resources through more effective and participatory uses of marine protected areas (MPAs) as an ecosystem management tool. It directs the National Oceanic and Atmospheric Administration (NOAA) and the Department of the Interior to work with other federal agencies and states, territories, tribes, and the public to develop a scientifically-based, comprehensive national system of MPAs. MPAs, a subset of the broader MMAs, are defined by the Executive Order as "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local



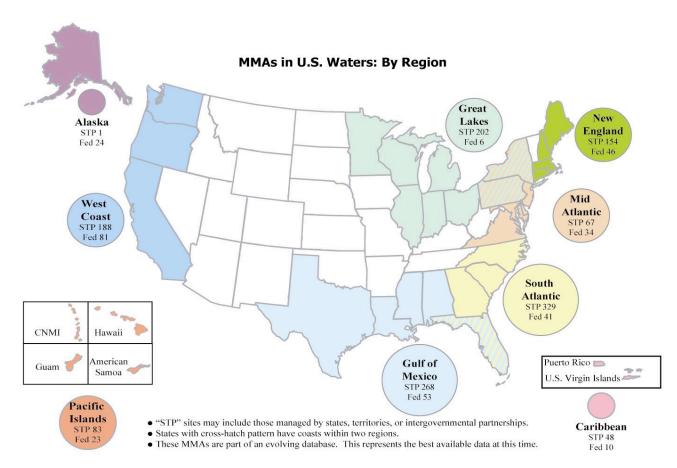
laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." Specific criteria for MPAs, similar to how the nation defines an MMA (above), are proposed in the draft national MPA system framework.

A National Summary of Marine Managed Areas in the United States

Regional Patterns

An essential first step toward building an effective national system of MPAs is to document and understand existing forms of place-based management in U.S. waters. To this end the MPA Center is completing an unprecedented compilation of the best available information on the location, purpose, habitat, species protected, and restrictions for all U.S. MMAs. Analysis of this inventory will produce the *first status report of existing place-based marine conservation efforts in the U.S.*, revealing important trends in how place-based management helps manage and conserve the nation's marine resources and ecosystems.

More than 1,500 MMAs are currently in place in the U.S. The South Atlantic (370) and Gulf of Mexico (321) regions have the greatest number of MMAs, followed by the West Coast and the Great Lakes. Most MMAs in the U.S. (57%) occur in Florida, California, Michigan, Massachusetts, and North Carolina combined. Each of these states has over 100 MMAs, and Hawaii, Washington, Georgia, and Maine each have more than 50 MMAs.

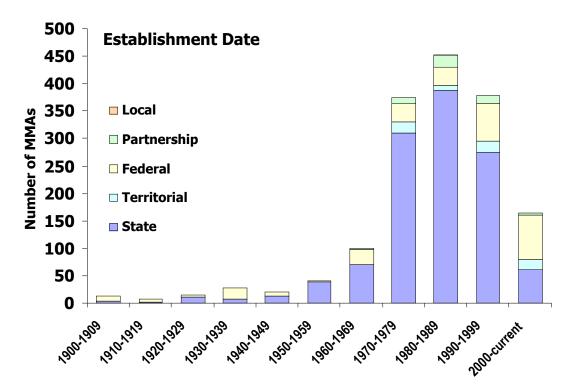




The number of individual MMAs only tells part of the story. Different patterns are revealed when the area covered by MMAs is compared among sites and regions (see MMAs of the West Coast). In addition, there are many examples of overlapping jurisdiction in which the same area is covered by more than one MMA, often with little change in actual regulations.

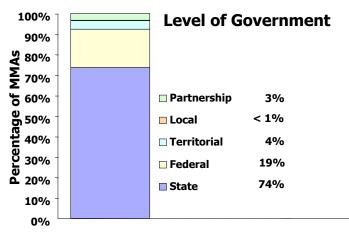
Establishment Date - National

Although MMAs have been used since the early 1900s, over 85% were established after 1970, coinciding with the growth in environmental awareness and the passage of new federal and state environmental management and protection laws. The first MMA in the U.S. was the Pelican National Wildlife Refuge in Florida, which was created in 1903 to protect water birds.



Level of Government - National

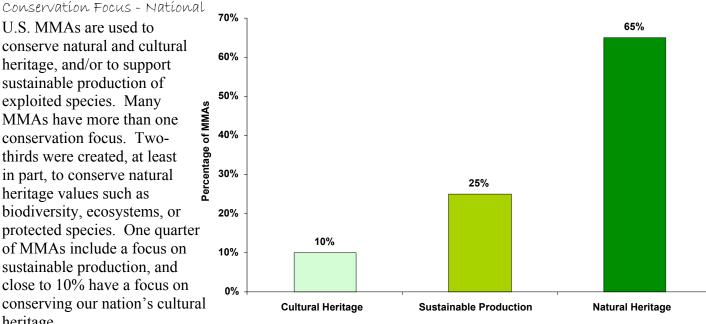
More than 75% of the nation's MMAs are managed by coastal states and territories, while fewer than 20% are under federal jurisdiction. Many state MMAs were created to protect specific coastal habitats (e.g., beaches) and resources (e.g., nesting birds). Of the federal MMAs, 35% are national wildlife refuges, many of which encompass large terrestrial areas with relatively small marine components. Federal fisheries closures (44% of the federal MMAs) are often very large and can span several states.





Conservation Focus

Conservation Focus - National U.S. MMAs are used to conserve natural and cultural heritage, and/or to support sustainable production of exploited species. Many MMAs have more than one conservation focus. Twothirds were created, at least in part, to conserve natural heritage values such as biodiversity, ecosystems, or protected species. One quarter of MMAs include a focus on sustainable production, and close to 10% have a focus on



Ecological Scale of Protection - National

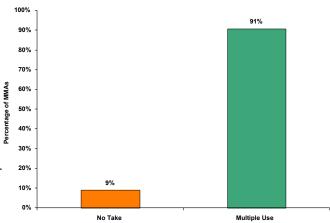
MMAs have been an important component of ecosystem-based management for decades. Seventy percent of MMAs were established to conserve comprehensive ecosystem functions. In contrast, only 30% of all MMAs target a specific focal resource or habitat feature, such as an endangered species or a recovering fish stock.

Level of Protection - National

heritage.

At least nine of 10 MMAs in the U.S. are "multiple-use" sites, in which a variety of human activities, including fishing and other forms of harvest, are allowed. In contrast, fewer than 10% of individual MMAs are notake" areas that prohibit all extractive uses.

The relative size of multiple-use and no-take MMAs show even stronger contrast. In most states and regions, no-take MMAs cover far less area than the typically larger multiple use MMAs.



Permanence of Protection - National

Nearly all MMAs (98%) provide permanent protection to the areas they encompass, and thus have the potential to remain in place in perpetuity. Only a few require active reauthorization by the managing agency or other decision-makers to persist.



Year-Round Constancy of Protection - National

More than 90% of all MMAs provide year-round protection to the resources they encompass. In contrast, 6% are seasonal and were established to protect habitats, such as spawning or nesting sites, where environmentally sensitive areas or important ecological processes may be threatened by human activities during discrete periods of the year.

Overview of MMAs of the West Coast (California, Oregon, Washington)

The west coast is currently at the forefront of MPA activity in the U.S., with a growing network of MMAs supported by strong science and stakeholder input. The inventory of U.S. MMAs has the most extensive data for west coast MMAs, allowing a preliminary exploration of emerging patterns from the broader national data set. This first comprehensive picture of west coast MMAs includes summaries of types of allowable use, level of governance, conservation purpose, scale of protection for numbers of MMAs, and percent area within MMAs for the region.

MMA Coverage - West Coast

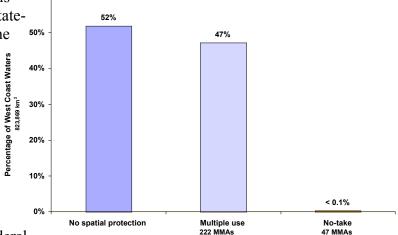
An analysis of the region reveals a total of 269 MMAs, covering 47% of U.S. waters off the west coast (0 to 200 nautical miles). Much of this area consists of fishery management zones that are focused on the recovery of specific fish stocks

Level of Protection in West Coast Waters

or habitats. California, which is developing a comprehensive statewide system of MPAs under the Marine Life Protection Act (MLPA), has 67% of all the state-managed MMAs in the region, followed by Washington and Oregon (177, 62, 33 MMAs respectively). While state MMAs outnumber federal

sites on the west coast, the

amount of area they protect



shows the opposite pattern: federal

MMAs cover 84 times the area of state-managed MMAs.

Level of Protection - West Coast

The level of protection provided by west coast MMAs mirrors the pattern seen nationally. Multiple use MMAs in the West Coast are much more prevalent than no-take MMAs, with 17% of the number and only 0.04% of the area of the West Coast in no-take MMAs. Within combined state waters (0 - 3nm), only 1.1% of the area is covered by no-take MMAs. Furthermore, fishing activities are allowed in most MMAs along the west coast, with most types of recreational, commercial, and catch and release fishing occurring within their boundaries.



Permanence and Constancy of Protection - West Coast

All west coast MMAs offer permanent protection to the habitats and resources they encompass. Of these, 265 MMAs offer year round protection for 47% of west coast waters, while merely 0.009% of the marine region is seasonally protected by four MMAs.

Ecological Scale of Protection - West Coast

The majority (166 of 269) of west coast MMAs focus on protecting ecosystems, while 103 MMAs focus on particular species or habitat features. While ecosystem-scale MMAs are more numerous in the west coast region, they protect much less area (8% of MMA area) than the typically larger sustainable production MMAs targeting focal species and their habitats (92% of MMA area).

The Emerging National Picture of Place-based Marine Management

Clearly, there are many MMAs in U.S. waters, established and managed to achieve multiple purposes by a variety of federal, state, local, and tribal agencies. These diverse sites vary in mandate, jurisdiction, purpose, size, and level of protection, and in their likely effects on marine ecosystems and human users. The MPA Center's preliminary analysis of MMA usage in the U.S. reveals important patterns and trends in how place-based management is used to conserve the nation's marine resources, habitats, and ecosystems. Analyses of this unprecedented inventory illustrate the wide-spread use of MMAs as an ecosystem management tool throughout the nation. The results will inform the development of an effective national system of MPAs in the U.S., the mandate of Executive Order 13158. All analysis products will be posted on www.mpa.gov.

For More Information

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