

National Oceanic and Atmospheric Administration
Information Exchange for Marine Educators
Archive of MPA Information

MPA INFORMATION

Federal MPA Legislative Authorities

There are many different kinds of marine protected areas created under different local, state, tribal, or federal authorities. The National MPA Center has a quick guide to some of the legislation that provides the authority for various federal agencies and government entities to establish, manage, monitor and/or evaluate marine protected areas at the federal level. More extensive information, with links to the legislation, can be found on the Ocean Planning Information System (OPIS) Legislative Framework page. For more information, check out http://mpa.gov/mpa_programs/mpa_legislation.html and <http://www.csc.noaa.gov/opis/html/legal.htm>.

Gorgona Island National Park, Colombia

Gorgona Island is located in the Pacific off the coast of Colombia, South America. It has two main ecosystems: coral reef and tropical rainforest. Representative animals include a blue lizard (an endemic species), capuchin monkeys, bats, toads, snakes, fisher eagles, pelicans, boobies, and frigate birds, along with a host of insect species. The Environmental Education Project addresses the community schools and an Interpretative and Interactive Center provides interpretative walks.
www.parquesnacionales.gov.co.

The Great Barrier Reef Marine Park

The Great Barrier Reef is widely acclaimed as one of the world's great natural treasures. In 1981, the Great Barrier Reef gained international recognition through its inscription on the World Heritage List. The Great Barrier Reef World Heritage Area is the world's largest, and one of only a few World Heritage Areas that satisfy all four natural World Heritage Criteria (represent major stages of earth's history, represent significant ecological and biological evolutionary processes, contain superlative natural phenomena or beauty, and contain significant natural habitats for conservation). On July 1 2004, the Australian Commonwealth Government implemented a new zoning plan for the Great Barrier Reef which established a comprehensive network of protected areas covering more than 33 percent of the Great Barrier Reef Marine Park.

The charter of the Great Barrier Reef Marine Park Authority's Education Unit is to deliver education programs and activities about the Great Barrier Reef Marine Park and World Heritage Area throughout Australia. To meet this charter, the Education Unit has developed a range of programs and educational activities, including ReefEd, a dynamic educational website featuring a visual library, online curriculum units, the Great Barrier Reef Explorer, and a page designed specifically for student inquiry. For more information, check out <http://www.reefed.edu.au/>.

For more information on the marine park, ReefEd, and ReefHQ, check out <http://www.gbrmpa.gov.au/> .

MPA Issue of *Current: The Journal of Marine Education*

The National Marine Protected Areas Center has sponsored the July/August 2004 edition of the National Marine Educators Association's quarterly journal, *Current: the Journal of Marine Education*. The issue explores challenges facing MPA managers committed to wise public resource use and conservation, education about our nation's coastal and marine environment, and the public's interest in both enjoying these resources and preserving them for future generations.

Articles focus on seabirds and whales, coastal habitats and underwater shipwrecks, fisheries management, reserve design, a native Hawaiian approach to marine resource management, and questions facing managers when considering MPA networks. Three activities accompany the articles, enabling teachers to bring some of these issues directly into their classrooms. Jim Toomey, who draws "Sherman's Lagoon," generously contributed illustrations.

A Spanish language edition will be available later this year. In addition, the MPA Center will develop other activities to supplement the articles, and will post those activities on the www.MPA.gov website.

If you would like a copy of the issue or for more information, contact Phyllis Dermer at phyllis.dermer@noaa.gov, or (865) 932-5074.

MPA.GOV Website Redesign

The MPA Center's Website has undergone an extensive redesign and is now easier to use than ever. In addition to updated information, we have added new sections on MPA Programs, Information and Tools, and Regional Information Centers. New features on the site include a common terminology and classification system for U.S. marine protected areas in the Great Lakes, coastal, and marine environment; expanded library search capabilities; and an extended Information and Tools section with fact sheets, press releases, presentations, Frequently Asked Questions, and much more.

The Education section, under Information & Tools, now hosts the current month's edition of this Information Exchange for Marine Educators, along with printable archives of all of the information shared to date. Future plans include making the archived information more user-friendly through the addition of search capabilities for all of the different programs and opportunities. For a direct link to the materials from the Information Exchange, browse to http://www.mpa.gov/information_tools/education.html#InfoExchange . For more information, check out www.mpa.gov .

National Marine Protected Areas Federal Advisory Committee Meeting

The Marine Protected Areas Federal Advisory Committee, managed jointly by the Department of Commerce and the Department of the Interior, will hold its third meeting April 6-8, 2004, Key Largo, Florida. Attendance is open to the public, but registration is required at the meeting site. Public comment periods are scheduled for April 6 and April 8. The Committee has formed subcommittees on the National System of MPAs, MPA

Stewardship and Effectiveness, and National and Regional Coordination of MPA Efforts. For more information, check out <http://mpa.gov/fac/fac.html> .

New Canadian MPA: The Gully

MPAs are being used worldwide as an ecosystem management tool. A neighboring example is the Gully, Canada's first east coast MPA designated under the Oceans Act, located off Nova Scotia, near Sable Island. It is the largest submarine canyon in eastern North America. The Gully contains a rich diversity of marine habitats and species, including deep-sea corals and the northern bottlenose whale. The website contains audio, pictures, and videos in addition to background information. For more information, check out

<http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-gully-e.html> .

Northwestern Hawaiian Islands Marine National Monument Established

On June 15, 2006, President Bush signed a proclamation that created the Northwestern Hawaiian Islands Marine National Monument. The monument will be managed by the Commerce Department's National Oceanic and Atmospheric Administration and the Department of the Interior's U.S. Fish and Wildlife Service, in close coordination with the State of Hawaii. NOAA will have the primary responsibility regarding management of the marine areas.

<http://hawaiiireef.noaa.gov/management/>

On-Line Inventory of Marine Managed Areas of the United States

The MPA Center is developing an on-line inventory of federal, state, and tribal marine managed areas in the U.S. The website currently includes information about 328 sites, and an on-going data collection process is adding new sites and information all the time. Check out the inventory at http://mpa.gov/mpaservices/mpa_inventory.html .

Phoenix Islands Protected Area

The small Pacific Island nation of Kiribati has established a California-sized marine protected area of coral reefs and rich fish populations. The Phoenix Islands Protected Area (PIPA) conserves one of the Earth's last intact oceanic coral archipelago ecosystems, consisting of eight coral atolls and two submerged reef systems in a nearly uninhabited region of abundant marine and bird life.

<http://www.phoenixislands.org/index.php>

Race Rocks

Race Rocks is Canada's first MPA established under the Oceans Act, and contains extraordinary ecological significance. These small islands and intertidal and subtidal reefs are located in the Strait of Juan de Fuca, south of Vancouver Island. It is managed by the staff and students at Lester B. Pearson College of the Pacific, for research and education

The website won the Commonwealth of Learning Award for Educational Excellence in Distance Education Material. The website allows you to "view" the site through 360-degree virtual reality panoramas around the island. The website offers video clips and photographs of sea lions and other marine mammals observed near Race Rocks. There are links to whale watching guides and plenty of background information about the normal inhabitants of the area. In addition, the site has a taxonomy activity, and accessible online lesson plans through the Jason Project.

For more information, check out <http://www.racerocks.com/> . For additional information about using the virtual field trip as an educational activity, check out http://ali.apple.com/ali_sites/ali/exhibits/1000007/ .

Social Science for Marine Protected Areas

The Social Science Methods for Marine Protected Areas website focuses on the human dimensions of coastal resource management. Several topics, including surveys, nonmarket valuation, and social assessments, are illustrated through case studies. The site is a collaboration between the NOAA Coastal Services Center and the National Marine Protected Areas Center. For more information, check out <http://www.csc.noaa.gov/mpass/>

What is a Marine Protected Area?

The term “marine protected area” is a broad umbrella term used to describe an area-based management approach used in marine, Great Lakes, and near-shore waters. The federal government, in Executive Order #13158, defines 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.”

Less than 1 percent of US waters are no-take areas. Instead, the majority of U.S. MPAs are multiple use conservation areas that often permit both consumptive and nonconsumptive activities, such as fishing, diving, boating and swimming.

Examples of multiple use MPAs include most national marine sanctuaries, national estuarine research reserves, national parks and wildlife refuges with marine components, and many state underwater parks. These multiple use MPAs function both to protect ecosystems, and, at times, to support sustainable fisheries while allowing residents and other users to enjoy the resource.

For more information about this and other MPA facts, subscribe the MPA Center's monthly *Connections*, by sending an email request to Dana.Topousis@noaa.gov .

Notable Additions to the MPA Library

MPA Virtual Library

The National Marine Protected Areas Center, in collaboration with the NOAA Central Library, hosts the MPA Virtual Library to facilitate access to information on MPAs. The MPA Virtual Library serves as a searchable database of print, electronic, and web-based resources on U.S. and international marine protected area issues. The resources described and linked to in the MPA Library are organized by bibliography, conferences and workshops, institutions and organizations, and web sites.

http://www2.mpa.gov/mpa/mpaservices/virtual_library/virtual_library.lasso

The main MPA Library website is http://mpa.gov/mpaservices/mpa_library.html

Fisheries sustainability via protection of age structure and spatial distribution of fish populations

An article on fisheries sustainability asserts that interconnected networks of marine reserves are the best way to ensure old-growth age structure and complex spatial structure in groundfish populations.

<http://www.fisheries.org/html/fisheries/F2908/F2908p23-32.pdf>

Berkeley, Steven A. et al., "Fisheries sustainability via protection of age structure and spatial distribution of fish populations", *Fisheries* 29, 8 (August 2004): 23-32.

Great Lakes Shipwreck Bibliography

The Great Lakes hold an unknown quantity of historic archaeological sites, including shipwrecks. These shipwrecks are part of the maritime history of the United States, and many are in cultural marine protected areas. A list of publications on the shipwrecks in and around Michigan and Lake Superior is currently available in the MPA Virtual Library (use the search engine, keyword: shipwreck). The library has a preliminary bibliography of maritime archaeological and historical publications held in the Library of Michigan and the Office of the State Archaeologist, Michigan Historical Center; direct access to this abstract is at <http://www2.mpa.gov/mpa/mpaservices/library/Action.Lasso?-database=mpalib&-layout=tableview&-response=mpadisplay.lasso&-recordID=36900&-search> .

Halsey, John R., 2003, *A preliminary bibliography of maritime archaeological and historical publications held in the Library of Michigan and the Office of the State Archaeologist, Michigan Historical Center*, Lansing, MI

How is Your MPA Doing?

NOAA, the World Commission on Protected Areas, and the World Wildlife Fund have published four case studies that test the MPA management effectiveness guidebook, *How is Your MPA Doing?* Check out how the Miramare Natural Marine Reserve in Trieste, Italy, fared with their evaluation at <http://mpa.gov/mpaservices/library/notables.html> .

Contantini, Marco, Maurizio Spoto, Gonzalo Cid. (2003) *Miramare: a demonstration case: application of the WCPA-Marine/WWF Guidebook on Evaluating Effective Management in MPAs*.

Indicators for the Evaluation of Environmental Education, Interpretation and Information in Protected Areas

This article, featured in *Applied Environmental Education and Communication: An International Journal*, presents a model of evaluation of environmental education, interpretation and information carried out in the protected areas of the Balearic Islands off Spain. The article proposes indicators that can be used to analyze communications activities in protected areas.

Sureda, Jaume Oliver Miquel Castells Margalida, 2004. Indicators for the evaluation of environmental education, interpretation and information in protected areas. 3, 3: 171-81. Spain

Integrating Marine Reserve Science and Fisheries Management

The National Fisheries Conservation Center has posted the Consensus Statement "Integrating Marine Reserve Science and Fisheries Management." The 30-page

statement is the product of a two and a half day conference in June, 2004, featuring an expert panel from the fields of marine ecology, fishery management, economics, population dynamics, and modeling. The statement provides an objective examination and assessment of the information regarding potential biological, social, and economic consequences of marine reserves, their potential effectiveness as a fishery management tool in the U.S., the methods for integrating their application with existing U.S. fisheries management and how marine reserves might be designed, monitored and evaluated. In addition, the statement addresses sources and magnitudes of uncertainty associated with marine reserves and conventional management approaches, and recommends areas for further study. For more information, check out <http://nfcc-fisheries.org/consensus/index.php> .

Consensus Statement. June 7-9, 2004. Integrating Marine Reserve Science and Fisheries Management. National Fisheries Conservation Center.

Involving the Public: Legal Requirements for Public Participation

This reference guide highlights legislative mandates related to public participation in environmental decision-making. The guide is intended to help coastal and marine managers in designing and conducting a participatory process.

NOAA National MPA Center Training and Technical Assistance Institute. Involving the Public: Legal Requirements for Public Participation. Charleston, South Carolina, 2004.

<http://www.mpa.gov/redirect.html?newURL=http://www.csc.noaa.gov/mpa/RegulatoryRequirements.pdf> .

Ishmael's Inclinations: Non-Use Values of Marine Protected Areas

The authors describe four important non-use values to consider when considering MPAs: option value, quasi-option value, bequest value, and existence value. The direct link to this paper is at <http://unicorn.csc.noaa.gov/mpa/barrnuv.pdf>

Barr, B. W., Ehler R., and Wiley, P. 2003. "Ishmael's Inclinations: Non-Use Values of Marine Protected Areas." Chapter 12 in: The Full Value of Parks: From Economics to the Intangible, pp 157-68. Rowman and Littlefield Press, Lanham, Maryland.

List of publications on shipwrecks and shipwreck related topics located in NOAALINC

This is a bibliography of shipwreck related titles of print and online resources which have been cataloged in the NOAA Library Network's online catalog. Entries are organized alphabetically by title and include call numbers and URLs if available. The document also includes a section of selected Internet resources. .

List of publications on shipwrecks and shipwreck related topics located in NOAALINC, NOAA Library Network online catalog, compiled by Anna Fiolek, NOAA, 2004.

<http://www.lib.noaa.gov/edocs/Shipwrecks1.pdf>

Marine Reserves as a Tool for Ecosystem-Based Management: The Potential Importance of Megafauna

Marine predators attract significant attention in ocean conservation planning and are therefore often used politically to promote reserve designation. This article discusses whether their ecology and life history can help provide a rigorous ecological foundation for marine reserve design.

Hooker, S. K. and Gerber, L. R. (2004) *Marine Reserves as a Tool for Ecosystem-Based Management: The Potential Importance of Megafauna*. *Bioscience* 54 (1) 27-39.

Marine Sanctuaries Issue of *Current*

The education program of NOAA's National Marine Sanctuary Program is featured in quarterly issue of the National Marine Educators Association's *Current: The Journal of Marine Education* (Volume 21, Number 1, 2005). The issue illustrates how national marine sanctuaries serve as living classrooms where learners of all ages can see, touch, and learn about America's ocean and Great Lakes treasures.

Contact Michiko Martin at Michiko.Martin@noaa.gov

New Paradigms for Supporting the Resilience of Marine Ecosystems

This article discusses recent trends in understanding and moderating human impacts on marine ecosystems. The authors focus on the temporal and spatial scale of ecosystem dynamics and management, as well as the importance of biodiversity to the function and resilience of marine ecosystems.

Terence P. Hughes, David R. Bellwood, Carl Folke, Robert S. Steneck, and James Wilson: New paradigms for supporting the resilience of marine ecosystems. *Trends in Ecology and Evolution* 20(7):380-386, July 2005.

<http://www.sciencedirect.com/science/journal/01695347>

Northwestern Hawaiian Islands Newspaper Insert

A newspaper insert prepared during the period in which draft fishing regulations are being developed for the proposed Northwestern Hawaiian Islands National Marine Sanctuary discusses the history and importance of the islands' ecosystem, fishery management plans and coral reef preservation actions, the seafood market and its importance to consumers, and research on fishing effects on the ecosystem.

http://www.wpcouncil.org/NWHI/Documents/NWHI_Insert.pdf

Western Pacific Fishery Management Council, "Northwestern Hawaiian Islands Newspaper Insert". Honolulu, Hawaii: Honolulu Advertiser, March 6, 2005

Pay per nature view: Understanding tourism revenues for effective management plans

This report will be of interest for those looking at tourism as an economic development tool and finance mechanism for conservation. This report asks two main questions: What mechanisms can protected areas use to raise funds from tourism? and To what extent should protected areas raise funds from tourism? The report describes six survival essentials for protected areas, and uses these as a context for analysis of the role and potential of tourism in protected areas.

<http://www.leedsmet.ac.uk/lsif/the/documents/PayPerNatureView02.pdf>

Pay per nature view: Understanding tourism revenues for effective management plans. Font, X., Cochrane, J., and Tapper, R. (2004) Pay per nature view: Understanding tourism revenues for effective management plans, Leeds (UK): Leeds Metropolitan University

Protecting our Diverse Heritage: The Role of Parks, Protected Areas, and Cultural Sites

These proceedings of the joint George Wright Society Biennial Conference/National Park Service Cultural Resources 2003 conference focus on parks, protected areas, and cultural sites. Categories of papers include: Administrative and Intellectual Tools for Park Management; Basic Values and Purposes of Parks; Cultural and Natural Resources: Conflicts and Opportunities for Cooperation; and more. The individual papers can be downloaded from the website. For more information, check out <http://www.georgewright.org/2003proc.html>.

Harmon, D., Kilgore, B.M. and Vietzke, G. E. *Protecting Our Diverse Heritage*. Proceedings volume from the 2003 George Wright Society / National Park Service Joint Conference.

Southeast Regional Marine Plan: Implementing Australia's Oceans Policy in the Southeast Marine Region

Australia's National Oceans Office has released the first in a series of regional plans to ensure the protection and sustainable development of its vast ocean territory. The plan, downloadable from the website, addresses the southeast region's rich biodiversity, and the economic, social, and cultural values important to the region's communities.

South-east Regional Marine Plan: Implementing Australia's Oceans Policy in the South-east Marine Region (2004)

http://www.oceans.gov.au/pdf/SERMP/NOO1_Oceans.pdf

Spanish issue of *Current: the Journal of Marine Education* focused on Marine Protected Areas

The National Marine Protected Areas Center sponsored the Spanish translation of the July/August 2004 edition of the National Marine Educators Association's quarterly journal, *Current: the Journal of Marine Education*. The issue focuses on marine protected areas (MPAs) and explores challenges facing MPA managers committed to wise public resource use and conservation, education about our nation's coastal and marine environment, and the public's interest in both enjoying these resources and preserving them for future generations. Over the coming year, the MPA Center will develop other activities to supplement the articles, and will post those activities on the www.MPA.gov website.

Contact Phyllis Dermer at phyllis.dermer@noaa.gov, or (865) 932-5074

State Policies and Programs Related to Marine Managed Areas: Issues and Recommendations for a National System

The Coastal States Organization, in cooperation with the National Marine Protected Areas Center, conducted research and interviews related to state-level marine managed areas (MMAs) and the potential for future federal/state coordination within a national MPA system. This report characterizes existing MMA policies and programs at the state level; presents the potential implications of the proposed national system of MPAs for coastal states; and proposes recommendations toward an effective national MPA system for consideration by both state and federal officials. Please contact John Lopez at john.lopez@noaa.gov for more information. The direct link to this paper is at http://www2.mpa.gov/mpa/mpaservices/virtual_library/publications.lasso.

Davis, B., Lopez, J. and Finch, A., 2004, *State Policies and Programs Related to Marine Managed Areas: Issues and Recommendations for a National System*, Washington, DC

