

mpa connections

A publication of the National Marine Protected Areas Center

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The *mission of the National Marine Protected Areas Center* is to facilitate the effective use of science, technology, training, and information in the planning, management, and evaluation of the nation's system of marine protected areas. *MPA Connections* was launched to meet continuing calls by agency and external stakeholders for information about MPA Center activities and to feature other actions that address Executive Order 13158 goals.

Update from Joseph Uravitch, Director National Marine Protected Areas Center

It has been a while since our last publication of *MPA Connections*. So, I wanted to begin by letting you know that we have been working hard over the past year to make progress on accomplishing our primary goal: establishment of an effective, comprehensive National System of MPAs for the United States. After nearly seven years of laying the foundation for the national system through inventory, analysis, outreach, technical support, targeted science, and stakeholder involvement, we are nearing a major milestone. In 2008, the national system Framework will be completed and the initial national system based on existing MPAs will be established. You can find information about our progress and next steps on page 3.

We've often heard questions during the development process concerning the "value added" of establishing the national system. I believe these will be seen both in terms of real-world conservation benefits and the institutional improvements needed to make them happen. We all know that the world and its marine ecosystems are changing, and doing so rapidly in many cases. Further, submerged cultural resources are becoming more and more known and accessible, increasing both their value to the public and also the threat to these resources as a result of improved accessibility. I believe the national system of MPAs will be an important part of the solution to problems caused by such conditions, helping our nation prepare for and address change. It can, for example, provide opportunities for ecosystems, or at least key places within them, to become more resilient in the face of global change. How will the National System help this happen? In several ways.

First, there is a growing scientific literature about the value of MPAs for protecting biodiversity, habitat, and unique geologic or oceanographic features, as well as the need for MPAs and MPA networks to contribute to sustainable fisheries and maintain ecological resilience. The national system will help clearly identify and begin to address a common

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MPA Connections was first published by the National Marine Protected Areas Center in October 2002. The newsletter is available electronically and distributed via listserve. Issues are archived on http://mpa.gov/information_tools/newsletters.html. To subscribe, send an email to the editor, Kara.Schwenke@noaa.gov.

Update from Joe Uravitch, continued from page 1

set of priority conservation objectives. This will be done first through linking and enhancing existing MPAs and, over time, through open public processes to identify gaps in the system that can be protected through the authority and action of federal, state, territorial, tribal, local or other partner programs.

Second, in what are likely to continue to be times of tight budgets and significant workloads at all levels of government, the national system will provide a formal national and regional structure which can be used to mobilize partnership resources to identify and address common conservation problems. This is particularly important for problems whose solution requires working beyond the borders of a single MPA, state, or region, or the jurisdiction of an individual program.

Third, the national system will provide a mechanism to identify and help provide or direct partners to the technical, scientific and educational resources necessary to improve MPA stewardship capabilities. Targeting of available support will be built on updated versions of our earlier “needs assessments” of MPA managers.

Finally, the U.S. national system will be linked with MPA systems beyond U.S. waters, sharing information and capabilities, as well as providing a mechanism to work on problems that must be addressed on this broader scale. An example of such cooperation can be found in the developing North American MPA Network’s “Baja to Bering” Pilot Monitoring Program. In 2008, the U.S., Canada, and Mexico, with the support of the Commission for Environmental Cooperation in North America, and technical support from NOAA Fisheries, will provide the first prototype “condition report” based on information from ten MPAs along the Pacific Coast. This group includes four U.S. sites from the National Estuarine Research Reserve, National Park, and National Marine Sanctuary Systems; two sites in Canada; and four sites in Mexico. This work already has been recognized at the highest levels, being cited as a “key environmental accomplishment” by President Bush, President Calderon, and Prime Minister Harper at their meeting at Montebello, Quebec, Canada, in August 2007.

The year 2008 will be a major milestone – not just for the MPA Center, but for all those who value our marine heritage. I hope you enjoy this edition of *MPA Connections* and am excited that we now have the resources to again provide you with this newsletter on a continuing quarterly basis. In between issues, I urge you to visit www.mpa.gov for current information on the MPA Center’s activities, including up to date information on National System development. We look forward to hearing from and working with you in 2008!

—Contact Joe Uravitch at joseph.uravitch@noaa.gov

Staff Changes at the National MPA Center

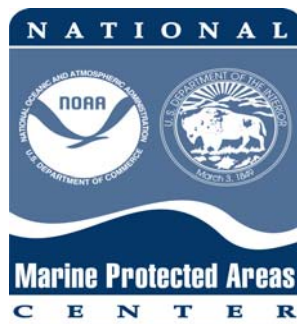
By: Joe Uravitch, Director, MPA Center

Passing time also has meant considerable changes in MPA Center staff and a rebuilding of some lost capabilities. I’d first like to welcome several new staff members to the MPA Center. Kara Schwenke, our new communications coordinator, started in mid-August and will be the point of contact for most of the MPA Center’s internal and external communication efforts. Fortunately, the hiring of a communications coordinator has allowed us to resume quarterly publication of “Connections”, as Kara is the new editor. I’d also like to welcome Dr. Mimi D’Iorio, our GIS and Database Manager, and Katya Wowk, our Sea Grant Fellow. Last but not least, I’d like to welcome Jeffrey Harrison, administrative assistant for the MPA Center who started in October. Jeffrey will be assisting with the MPA Center’s administrative tasks on a part-time basis and will provide much needed guidance and assistance in dealing with day-to-day logistical issues.

The hiring of new staff could not come at a better time, as there is much to accomplish in 2008. Our primary emphasis will be the completion of the final Framework for the National System of MPAs and continued development of foundation information for system design and documentation contained in our Marine Conservation Area Database, which includes the Marine Managed Area Inventory, Defacto MPA Inventory, and developing natural resource and social science databases.

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Update on MPA Federal Advisory Committee

The MPA Federal Advisory Committee (FAC), a group of 30 representatives of diverse ocean and Great Lakes interests that advises the Departments of Commerce and the Interior, met twice in 2007 to continue its work providing recommendations on the development of the national system. In addition, the MPA FAC broke new ground in meeting by web and teleconference to provide comments on the *Draft Framework for Developing a National System of MPAs* during the public comment period.

In April 2007, the MPA FAC met at the National Science Foundation in Arlington, Virginia to identify a set of categories and priority objectives for the national system of MPAs. The MPA FAC successfully adopted recommendations to address these issues, which were transmitted to the Departments of Commerce and the Interior. The meeting also included a discussion with Congressman Sam Farr on his "Oceans 21" legislation, and a dialogue with NOAA staff on the future of coastal management, in preparation for the reauthorization of the Coastal Zone Management Act (CZMA).

In October 2007, the MPA FAC met in Alpena, Michigan at the Great Lakes Maritime Heritage Center, home of the Thunder Bay National Marine Sanctuary. Building on work from their last meeting, the MPA FAC completed recommendations to the Departments of Commerce and the Interior on aspects of planning the national system of marine protected areas. Their recommendations focused on regional coordination within the national system; incentives for states and other partners to participate in the national system; and the role of the national system in strengthening MPA management planning.

The October 2007 FAC meeting was also a time to say goodbye to ten FAC members whose terms expired this year. These members include: Tundi Agardy, Robert Bendick, Michael Cruickshank, Eric Gilman, John Halsey, Bonnie McCay, Steven Murray, Lelei Peau, Max Peterson and Daniel Suman. The MPA Center would like to extend its sincere thanks to all of the departing MPA FAC members for their dedication, creativity, and time.

The next MPA FAC meeting will be held April 22-24, 2008 in the Washington D.C. area.



Shown above are current, ex-officio, and prospective members of the MPA Center's Federal Advisory Committee as of October 2007. Members pictured above include: Steve Murray, Mark Hixon, Daniel Suman, Bob Bendick, Jim Ray, John Ogden, Jim Woods, Dennis Heinemann, Charles Beeker, Bonnie McCay, Mike Cruickshank, Lelei Peau, Ellen Goethel, George Lapointe, John Halsey, Dan Bromley, Bob Zales and Tony Chatwin. Ex-officio members pictured include: Chris German, Brian Melzian, Peter Fippinger and Randy Bowman. MPA Center staff pictured include Lauren Wenzel and Joseph Uravitch.

Latest News on U.S. Efforts to Develop the National System of Marine Protected Areas

From September 2006 through February 2007, the National Marine Protected Areas Center released the *Draft Framework for Developing the National System of Marine Protected Areas* for public comment. In response, the MPA Center received over 11,000 submissions from around the nation representing over 100 specific comments. Comments came from many different organizations and sectors including: state and tribal governments, conservation and industry organizations, private individuals, commercial and recreational fishers and fishing groups/industry, fishery management councils and commissions, academia, and the MPA Federal Advisory Committee (FAC). Several commenters raised a common "big picture" issue -- the scope and size of the system. They were concerned that the system was attempting to achieve all encompassing goals and objectives all at once, with little prioritization. Others commented on the large size of the system, and the potential for this to render the system ineffective.

To address these and other comments, the MPA Center solicited advice from the MPA FAC. In April 2007, the FAC was charged with preparing recommendations for the MPA Center that would be formally transmitted to the Departments of Commerce and the Interior and used to finalize the *Framework for Developing a National System of Marine Protected Areas*. Specifically, these recommendations focused on management criteria, priority objectives, and MPA categories. They help address the issues of the size and scope of the national system by recommending a minimum management capacity for MPAs in the national system; and identifying near, mid, and long term goals and objectives based on data availability and effort required. In addition, the MPA FAC recommended establishing a set of MPA categories for use within the national system. Such categorization would partition the national system into manageably-sized groups of comparable sites, provide a limited set of terms for clearly communicating about each site's purpose and level of protection, and package sites based on comparable conservation objectives.

For more information on developing the National System of MPAs, visit http://www.mpa.gov/national_system/national_system.html or contact Jonathan.Kelsey@noaa.gov

Free MPA Education-Focused Newsletter Available

The MPA Center produces a monthly education-focused newsletter called *Information Exchange for Marine Educators*. The publication is intended to improve the availability of education information to MPA practitioners and the public, encourage exchange of information and programs, and promote collaboration among educators. Additionally, the newsletter lists grants and opportunities, conferences and workshops, educational resources, and initiatives, journals, and education news. Issues are distributed via a listserv and posted on the MPA.gov website. If you'd like to receive the monthly update, please send a blank message to requests@willamette.nos.noaa.gov with "subscribe infoexchange" in the subject field. You can find current and archived issues of the Information Exchange at:

www.mpa.gov/helpful_resources/education_training.html#infoexchange

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Mapping Human Uses for the California Marine Life Protection Act

The MPA Center and the Marine Conservation Biology Institute (MCBI) recently collaborated in an externally funded project to generate maps of four non-consumptive uses in the North Central Coast Study Region (NCCSR) in support of California's Marine Life Protection Act Initiative (MLPAI).

At the direction of the MLPAI, this project provides socioeconomic information relevant to the MLPA's goal to improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbances, and to manage these uses in a manner consistent with protection of biodiversity. The team was charged with providing the MLPAI with specific quantitative data on the patterns and intensity of four non-consumptive human uses:

- Scuba Diving and Underwater Photography
- Whale Watching and Wildlife Viewing
- Tide Pooling
- Kayaking and Canoeing

Based on a series of mapping workshops with the user community, the MPA Center and MCBI created geographic information system (GIS) maps indicating where the uses occur within the study region, along with spatially explicit information about the intensity of each use.

Data Collection

The project team collected data from people knowledgeable about the four non-consumptive uses listed above in order to document patterns and intensity for each of the targeted uses. Working with members of the MLPAI staff and regional agencies and organizations, informants were identified and invited to participate in the mapping effort. In addition, calls for participants were posted on at least six list servers as well as in places of business catering to the targeted uses, such as dive and kayak shops. Participants varied widely in expertise and interest, and included park rangers, kayak club members, SCUBA club leaders, natural area docents and volunteers, resource managers, whale watch vessel captains, and local educators.

Two mapping workshops were held in the NCCSR, with a combined total of 34 participants. Additionally, interviews were conducted with individuals or small groups and spatial data on uses were collected by mail. Overall, 47 people from the NCCSR contributed to the use pattern maps.

At the mapping workshops, participants provided information on the patterns and intensity of use for the four non-consumptive activities across the NCCSR using a combination of paper maps and worksheets. The NCCSR was divided into six subregional paper maps for ease of display, and workshop participants were asked to capture *use patterns* and *intensity of uses* on each of the maps.

Data Processing

For each mapping participant, the resulting maps and mapped use areas were individually reviewed for quality and consistency to facilitate accuracy conversion into the digital database. The mapped use areas (polygons) were then digitized into a geodatabase, assigned unique identifiers, and attributed with supplemental qualitative information. Upon completion of digital conversion, the geodatabase records were again compared back to the paper map entries to ensure consistency and quality control.

The data were compiled into one comprehensive data layer and then aggregated into one nautical mile microblocks. For each specific use, the area of each polygon was calculated, as well as the area and count of all individual polygons drawn for that use within each of the NCCSR microblocks. Intensity analysis was conducted by aggregating all the use polygons to the microblock and calculating the area weighted mean of intensity per microblock per use. The data were then compiled into a series of maps.

Results

A total of 47 participants created a total of 209 maps for this project. Of these 47 participants: 32 mapped one use, nine mapped two uses, three mapped three uses, and three mapped four uses.

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2008 Events and Conferences*

January

9-12: Society for Historical Archeology (SHA) 2008 Conference on Historical and Underwater Archeology; Albuquerque, New Mexico; <http://www.sha.org/about/conferences/2008.htm>

February

3-8: NOAA Heritage Week; NOAA Science Center; Silver Spring, MD; <http://preserveamerica.noaa.gov/heritageweek.html>

25-28: NOAA's Office of Ocean and Coastal Resource Management's Annual Ocean and Coastal Program Managers' Meeting; Washington, D.C.; <http://coastalmanagement.noaa.gov/pmm/>

March

2-7: 2008 Ocean Sciences Meeting, "From the Watersheds to the Global Ocean," Orlando, Florida; www.aslo.org/forms/orlando2008.html

April

7-11: Fourth Global Conference on Oceans, Coasts, and Islands; Hanoi, Vietnam; <http://www.globaloceans.org/globalconferences/2008/index.html>

22-24: MPA Federal Advisory Committee Meeting; Washington, D.C. area; http://www.mpa.gov/mpafac/mpafac_meetings.html

*Events and conferences listed above are not necessarily events that NOAA or the MPA Center will be sponsoring and/or participating in.



Artwork courtesy of Jim Toomey ©

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Recent Additions to the MPA Virtual Library

- A Congressional Research Service report, updated periodically, outlines U.S. jurisdiction over ocean resources, analyzing the existing laws to assess their application to marine environments, and describing the regulatory options related to MPA creation. This January 2007 update to the report discusses issues related to the National Marine Protected Areas Center, including Executive Order 13158, and the draft framework for a national system of MPAs. Vann, Adam, “Marine Protected Areas: Federal Legal Authority (January 17, 2007 update).” Washington, D.C.: Congressional Research Service of the Library of Congress, January 17, 2007. http://www.opencrs.com/rpts/RL32486_20070117.pdf
- An implementation update to the Committee on Ocean Policy’s Ocean Action Plan (OAP) describes the present status of each of the actions and sub-actions outlined in the OAP, and notes progress on several MPA issues, including the completion of the Draft Framework for Developing the National System of Marine Protected Areas. Committee on Ocean Policy, Council on Environmental Quality, “U.S. Ocean Action Plan Implementation Update.” Washington, D.C.: Council on Environmental Quality, January 2007. http://ocean.ceq.gov/oap_update012207.pdf
- A new FAO web site addresses the contribution of MPAs to fisheries management, identifies and promotes best practices and integrated approaches to MPAs, and provides links to information resources of interest dealing with MPA news, databases, and geographic information systems. Food and Agriculture Organization of the United Nations, “Marine Protected Areas as a Tool for Fisheries Management.” http://www.fao.org/fi/website/FIRetrieveAction.do?dom=org&xml=mpas.xml&xp_nav=1
- An IUCN WCPA guide for MPA planners discusses eight criteria for establishment of MPA networks, and the importance of involving stakeholders to achieve networks with maximum environmental, economic, and social benefits. IUCN World Commission on Protected Areas, “Establishing Marine Protected Area Networks: Making It Happen: A Guide for Developing Regional and National Capacity for Building MPA Networks.” IUCN World Commission on Protected Areas, 2007. <http://www.iucn.org/themes/wcpa/biome/marine/mpanetworks/nsmail.pdf>

Mapping Human Uses, continued from page 4

Diving and underwater photography was mapped by 16 participants; kayaking and canoeing was mapped by 13 participants; whale watching and wildlife viewing was mapped by 24 participants; and tide pooling was mapped by 18 participants. The table below shows the number of individual maps created for each use in each of the six subregions.

Sub-Region	Diving	Kayaking	Tide Pooling	Wildlife	Total
SR1	13	7	5	11	36
SR2	14	10	13	18	55
SR3	3	8	9	15	35
SR4	4	6	8	13	31
SR5	4	6	10	10	30
SR6	5	2	2	13	22
Total	43	39	47	80	209

After processing all data and aggregating the maps drawn by participants into the microblocks, a total of 16 maps were produced. To include a higher level of detail, the NCCSR was broken down into two subregions and two maps were provided for each of the four uses. The map products are intended to provide a better understanding of the patterns of human use for the four non-consumptive uses in the NCCSR to support MPA planning.

For more information, contact Charles.Wahle@noaa.gov.

MPA Center Science and Stewardship (A continuing series from the MPA Center)

MPA Center hosts symposium at American Fisheries Society Annual Meeting: On September 3, 2007, Dr. Lisa Wooninck from the MPA Center and the NOAA Fisheries Ecology Division in Santa Cruz, CA, organized a symposium at the American Fisheries Society 127th Annual Meeting entitled, “Does MPA Mean ‘Major Problems for Assessment’? Integrating MPAs and Conventional Fishery Science and Management.” The purpose of the symposium was to address topics focused on the consequences of integrating MPAs and traditional fishery management.

The symposium consisted of ten diverse presentations given by fishery biologists and marine ecologists. To inform attendees of the variation in the nation’s marine managed areas (MMAs), Dr. Rikki Grober Dunsmore of the MPA Center started the symposium by presenting an evaluation of MMAs established for sustainable production (i.e., fisheries) and natural heritage (e.g., biodiversity) purposes. A majority of presentations were the result of expert working groups convened by the MPA Center and NOAA Fisheries, and included such topics as: trade-offs in fishery yield and ecosystem parameters, how traditional stock assessments may change and/or improve, and the importance of understanding connectivity for larvae, adult species, and fishermen. For more information on the MPA Center and integrating fisheries and MPA science, visit www.MPA.gov, or contact Lisa.Wooninck@noaa.gov

