

mpa connections

Special Issue Focused on MPAs in the Global Context



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MPA Data at Your Fingertips

Did you know that the U.S. currently has more than 1,700 MPAs? And that the majority (83%) of these sites are multiple-use, allowing a variety of human activities, including fishing and other extractive uses?

This information, and more, is available through the MPA Center’s online MPA Inventory - a geospatial database designed to catalog and classify marine protected areas within U.S. waters. This comprehensive inventory of federal, state and territorial MPA sites provides governments and stakeholders with access to information to make better decisions about the current and future use of place-based conservation, and is the only such dataset in the nation.

In addition to data on the name, year established, location and protection level, the database contains information on conservation objective, governance, permanence, and fishing restrictions, among others.

The database has various applications for marine management and conservation, but its primary purpose is to maintain baseline information on MPAs to assist in the development of the National System of MPAs, as defined in Executive Order 13158.

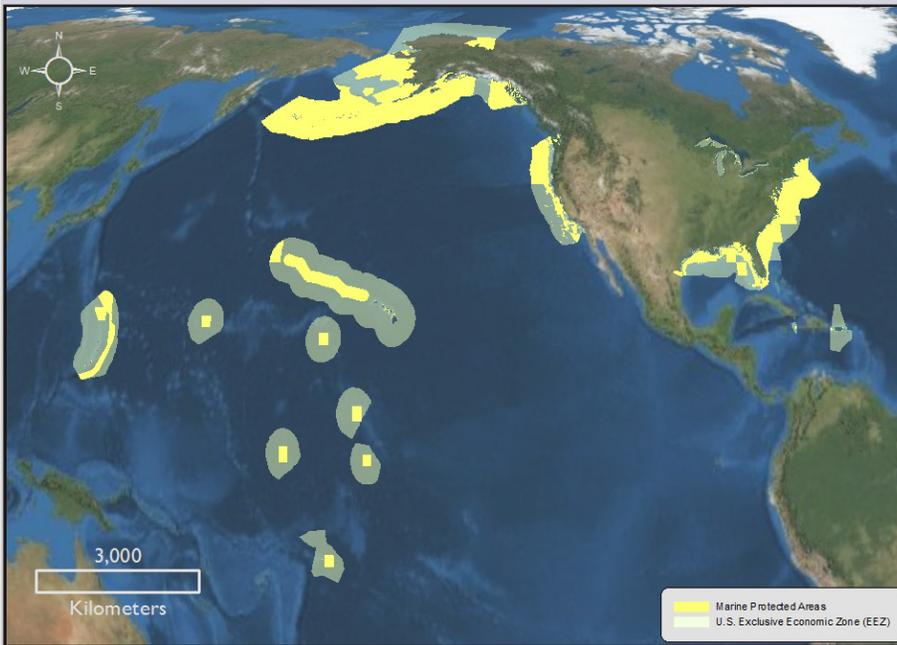
Expanding the MPA Inventory

To expand the utility of the Inventory database and to reflect the best available information on MPA resources and management, the Inventory is now incorporating data on physical, cultural and ecological resources, scientific monitoring activities, major management activities, and legal authority data at the site level. This effort is not designed to characterize all the specific resources within each site, but rather to summarize the resource groups present and the variety of management strategies applied to protect natural and cultural resources in MPAs at regional and national scales. These improvements to the MPA Inventory will link existing spatial data with new cultural and natural resource (presence/ absence) data to better understand the legal protection, biological composition and resource representation of U.S. MPAs.

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MPA Inventory: Painting a Picture of U.S. MPAs (continued)



United States MPAs at a Glance:

- The U.S. currently has more than 1,700 MPAs
- About 8% of all U.S. waters are in an MPA focused on conserving natural or cultural resources (excludes fishery MPAs)
- About 41% of all U.S. waters are in some form of MPA
- Nearly all (86%) U.S. MPAs are multiple-use
- “No take” MPAs occupy only about 3% of all U.S. waters
- Less than 8% of the area in MPAs in the U.S. is “no take”
- The majority of U.S. MPAs are located within the Virginian Atlantic marine ecoregion, which extends along Cape Hatteras northward to Cape Cod
- State and territorial governments manage approximately 75% of the nation’s MPAs, but most area is managed by federal agencies

MPA Inventory: What Have We Learned?

Data from the MPA Inventory allow the MPA Center to develop updated statistics on U.S. MPAs (see box, above). For example, recent analyses have shown that the 1,729 existing U.S. MPAs cover more than 41% of U.S. marine waters, and vary widely in purpose, legal authorities, managing agencies, management approaches, level of protection, and restrictions on human uses. However, when you exclude National Marine Fisheries Service MPAs, which are typically established over large areas with targeted gear restrictions, 8% of U.S. waters are within an MPA.



For More Information

To view U.S. MPAs, check out the MPA Center’s Online MPA Mapping Tool. Found online at www.mpa.gov/mpaviewer, the mapping tool allows users to visualize MPA boundaries and provide access to the MPA Inventory data in an interactive web-based mapping environment.

For more analyses of U.S. MPAs, download the MPA Center’s “Analysis of U.S. MPAs” fact sheet, found online at: http://www.mpa.gov/pdf/helpful-resources/mpa_analysis_2012_0320.pdf.

Upcoming Events and Conferences*

August 2012

23-24: International Conference on Fisheries and Marine Sciences (Marine Fish 2012); Negombo, Sri Lanka; www.marinfish.org

September 2012

17-21: Coast to Coast; Brisbane, Australia; www.coast2coast.org.au/

October 2012

20-24: 6th National Conference on Coastal and Estuarine Habitat Restoration; Tampa, Florida; www.estuaries.org/conference

November 2012

25-29: 2012 MPA Conference; San Francisco, CA; www.wildaid.org/mpaconference

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

"Oceans" a Priority Area at the Rio +20 World Conference on Sustainable Development

The United Nations Conference on Sustainable Development, or Rio +20, was held June 20-22, 2012, in Rio de Janeiro, Brazil to mark the 20th anniversary of the 1992 Earth Summit in Rio, where countries adopted Agenda 21 - a blueprint to rethink economic growth, advance social equity and ensure environmental protection.

At the conference, world leaders, along with thousands of participants from governments, the private sector, NGOs and other groups came together to agree on a range of measures that can reduce poverty while promoting jobs, clean energy and a more sustainable and fair use of resources.

One of the issue areas identified as a priority was oceans. Several existing international authorities address ocean governance. The 1982 United Nations Convention on the Law of the Sea (UNCLOS) has 161 parties, including 135 coastal states, and sets out the legal framework within which all activities in the oceans and seas must be carried out. It established three institutions: the International Tribunal for the Law of the Sea, the International Seabed Authority and the Commission on the Limits of the Continental Shelf. The work under the auspices of the Law of the Sea and the Commission on Sustainable Development has become more closely linked in recognition of the importance of oceans and marine life in achieving sustainable development goals. In addition, several United Nations agencies such as the Food and Agriculture Organization of the United Nations (FAO), the International Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Environment Programme (UNEP) have undertaken work in order to promote sustainable ocean development and the protection of marine resources. The U.S. is not yet a party to the Law of the Sea Convention, but is actively engaged in global ocean governance issues.

A theme of the Rio +20 conference was "a green economy in the context of sustainable development and poverty eradication". However, the development of a "green economy" will rely in part on the sustainable management and use of oceans and their resources. At several preparatory committee meetings for Rio +20, various member states emphasized the importance of sustainable management of oceans and the conservation of ocean resources while referring to a "blue economy" approach.

At the conference, countries discussed the sustainable management and protection of oceans and marine resources, and renewed their political commitments to protect and restore the health, productivity and resilience of oceans and marine ecosystems. These commitments, and others made at the conference, are available on "The Future We Want" outcome document, found at: <http://www.uncsd2012.org/thefuturewewant.html>.

In Focus: Gwaii Haanas National Marine Conservation Area Reserve

Together, the Government of Canada and the Council of the Haida Nation manage the special place called Gwaii Haanas, meaning "Islands of Beauty" in the Haida language. In June 2010, Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site was officially established to conserve and protect resources so that sustainable uses will continue. Gwaii Haanas is now the only place on earth to be protected from mountain top to deep sea—nearly 5000 km² of land and ocean.

The Gwaii Haanas National Marine Conservation Area Reserve extends about ten kilometres offshore from Gwaii Haanas National Park Reserve and Haida Heritage Site, and encompasses approximately 3,400 km² of the Hecate Strait and Queen Charlotte Shelf Marine Regions. Gwaii Haanas contains the essence of the rugged beauty and ecological character of the Pacific coast. It is a celebration of more than ten thousand years of connection between land, sea and Haida culture. Visitors have an opportunity to witness a living culture, to observe nature and to experience solitude.

The maritime world of Gwaii Haanas is rich and diverse. Under the waters of the Hecate Strait, lie the contours of a former tundra-like plain, with meandering rivers, lakes and beach terraces - a landscape drowned when sea levels rose after the last ice age. Off the west coast of Gwaii Haanas, the Queen Charlotte Shelf drops away abruptly to about 2,500 metres. This is an area of many transitions - between ocean abyss, continental slope, shallow shelf, and the dramatically upthrust landmass of the islands. These "ecological edges" make for great biological richness.

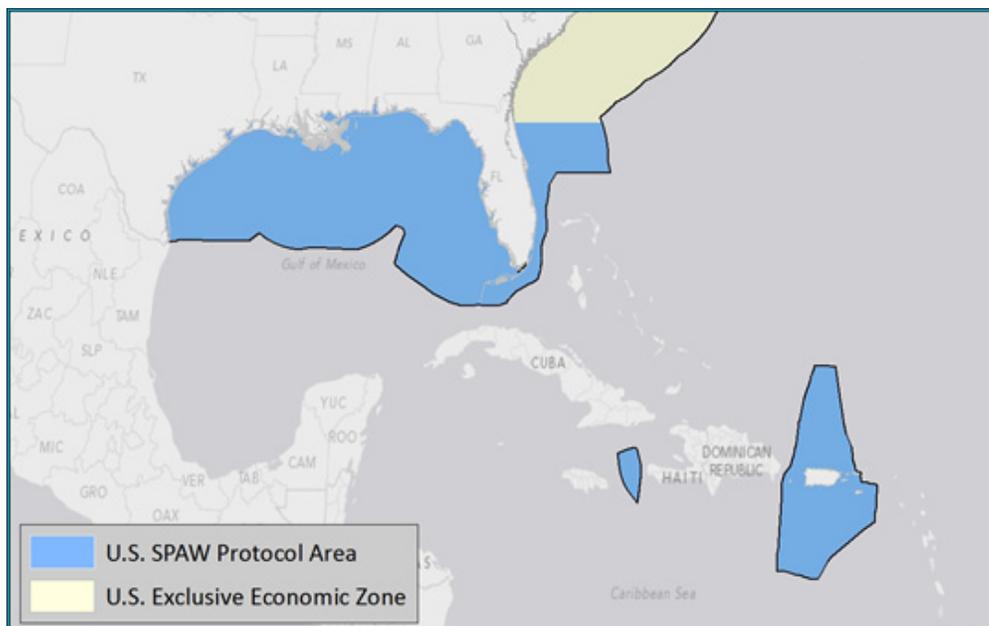
For more information, visit: http://www.pc.gc.ca/progs/amnc-nmca/cnamnc-cnmca/gwaiihaanas/index_e.asp



Clean, nutrient-rich water found in Gwaii Haanas supports productive kelp forest communities and some of the most abundant, diverse and colorful intertidal communities found in temperate waters anywhere in the world. Photo credit: Parks Canada

Specialty Protected Areas and Wildlife Protocol

-By Annie Hilary (Ret.), NOAA's International Programs Office



The National Oceanic and Atmospheric Administration is collaborating with Federal and state agencies and partners to develop the U.S. list of protected areas under the Specialty Protected Areas and Wildlife Protocol (SPAW Protocol) of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean (Cartagena Convention). The Cartagena Convention is a comprehensive agreement for the protection and development of the marine environment, providing the legal framework for cooperative regional and national actions in the Wider Caribbean Region. Having ratified the Cartagena Convention in 1984, the United States has an obligation to fulfill

its treaty requirements, as well as an opportunity to expand its leadership on marine conservation issues through the listing process. The SPAW Secretariat recently issued a call for the Contracting Parties to submit nominations for listed sites in advance of the meeting of the Contracting Parties in October 2012.

Coastal and marine areas that are ecologically important to the Wider Caribbean region are eligible to be listed. The List of Protected Areas will include areas protected in order to sustain the natural resources of the Wider Caribbean region, and to encourage ecologically sound and appropriate use, understanding and enjoyment. Ultimately, sites listed will contribute to a comprehensive and representative system network of protected areas in the Wider Caribbean region, across all bioregions and across the range of ecosystems within each bioregion.

The SPAW Protocol is designed to encourage regional cooperation in the designation and management of protected areas. The Protocol requires all Contracting Parties, including the U.S., to establish a cooperative program to create a network of "listed" protected areas. In 2012, the SPAW Secretariat enlisted five countries, including the U.S., to pilot the listing process. The Florida Keys National Marine Sanctuary was one of nine protected areas listed through this pilot. Other sites listed by Contracting Parties include:

Belize:

Hol Chan Marine Reserve
Glover's Reef Marine Reserve

Colombia:

Sanctuary Ciénaga Grande de Santa Marta
Regional Seaflower Marine Protected Area in San Andrés and Providencia Archipelago

France:

Grand Connétable Island Nature Reserve (French Guyana)
Guadeloupe National Park (Grand Cul de Sac Marin)

Netherlands Antilles:

Bonaire National Marine Park
National Park the Quill and Boven on St. Eustatius



The SPAW Protocol is a unique opportunity for Contracting Parties to collaborate on sustaining the natural resources of the Wider Caribbean Region, including: representative ecosystem types; habitats critical to the survival and recovery of endangered, threatened or endemic species; the productivity of ecosystems and natural resources; and areas of special biological, cultural, or other special interest.

First Marine Protected Area Agency Summit Held

-By Elizabeth Moore, NOAA's Office of National Marine Sanctuaries

Summit Background

Dozens of countries around the world have some kind of marine protected areas (MPAs) (about 6,000 globally according to the most recent review by the World Conservation Monitoring Centre) and in some cases, comprehensive MPA programs as well. However, although several MPA practitioner networks and regional associations/groups exist, such as IUCN's World Commission on Protected Areas-Marine, key MPA agencies from around the world had never been convened. This Summit represented the first time that such agencies were brought together.

The first MPA Agency Summit, comprised of officials from MPA agencies around the world, was held in San Francisco on February 14-16, 2012. The Summit was organized and hosted by NOAA's Office of National Marine Sanctuaries (ONMS), and made possible by a partnership with, and financial support from, the Waitt Foundation. The purpose of the Summit was to bring together the senior, decision-making leaders of MPA agencies from around the world to work cooperatively to address common problems and challenges in MPAs. Representatives from Australia, Bahamas, Canada, Chile, Dominican Republic, France, Italy, Korea, Mexico, New Zealand, Palau, Saudi Arabia, South Africa, Tanzania, United Kingdom, and the United States attended the Summit. These countries include eight of the thirteen largest EEZs in the world. A number of NGOs were also invited as observers.

Summit Discussions

A series of invited speakers and presenters provided context for discussions among the delegates. These discussions occurred through a series of interactive work sessions focused on key questions to help the delegates decide what the future might look like for this group of MPA agencies.

These questions were:

- What is the role for this group of MPA agencies?
- What contribution can this group make to MPA goals and targets?
- How could this group work with relevant organizations to address issues of common interest?
- What issue areas should this group focus on until the next meeting?

Through the course of these discussions, the delegates tentatively agreed to:

- Develop the delegates into an informal group of senior officials representing MPA agencies and programs from around the world.
- Consider expanding the membership in coming years to other countries but keep the group small.

- Hold one meeting annually.
- Take turns serving as the host nation/informal secretariat.
- Initiate two working groups, one to draft a resolution for the IUCN World Conservation Congress in September 2012 recognizing this new group and the second to work with France on the upcoming Third International MPA Congress (IMPAC3).
- Develop future projects as desired and supportable in coming months.
- Priority areas for projects include increasing the awareness of the relevance of MPAs to local communities and economies; sharing experiences and lessons learned among member countries, and leveraging the united power of the group to mutual benefit of the member.

Final agreement on these guidelines and projects will be made in the following weeks.

Next Steps

The next Summit will be held in France, hosted by l'Agence des aires marines protégées and will precede IMPAC3 in October 2013. It is hoped another of the member countries will agree to host the third MPA Agency Summit in 2014. Future countries may be added as deemed necessary and desirable by the group. Future projects will also be developed in the priority areas identified in this summit and all subsequent summits.



Sixteen countries were represented at the MPA Agency Summit.
Photo credit: NOAA

Development of an International MPA Campaign

- By Elizabeth Moore, NOAA's Office of National Marine Sanctuaries

Despite the fact that the ocean is facing more challenges than ever, and that MPAs are internationally recognized as an effective tool to help address these challenges, barriers to their creation and effective management exist on numerous fronts. These challenges include lack of awareness or ambivalence from the general public and lack of support among stakeholders, user groups and leaders. To help address the lack of awareness and increase support for MPAs, NOAA's Office of National Marine Sanctuaries (ONMS) and its partners, including the National MPA Center, decided to develop a multi-year, multi-media, international outreach campaign.

A workshop was conducted in February 2012 with a number of government and NGO partners to help lay the foundation for the campaign. Over three days, participants completed a situational analysis, detailed MPA values, identified specific messages to be highlighted by the campaign, designed a campaign and planned for the campaign's implementation.

The workshop and subsequent work by ONMS have resulted in a proposal for following campaign:

Goal: Increase the number and area of marine parks around the world.

Priority Message: Our Ocean, Our Future: Choose to Protect Special Marine Places

Key Messages:

- Protecting ocean areas:
 - * provides food security
 - * sustains local, regional and national economies
 - * serves as insurance for natural hazards and future uncertainties
 - * invests in future medicines, ecosystem services, genetic material, etc.
- Marine parks protect our natural legacies (biodiversity, ecosystems, species, habitats) for the future.
- Marine parks preserve our cultural and community legacies (shipwrecks, history, ways of life, and memories) for the future.
- The ocean is in trouble and urgent action is needed now. Marine parks are part of the solution.

Key Audiences:

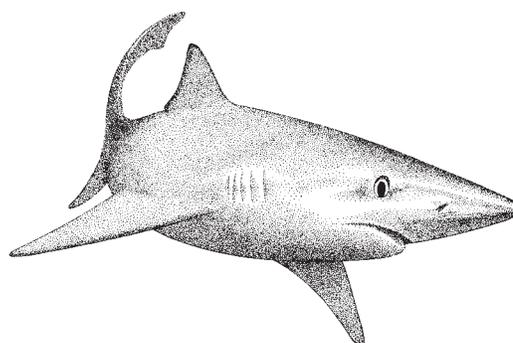
- Ocean Decision makers – agency heads and elected officials at all levels (local, state, tribal, territorial, and national) who have the authority to make decisions affecting the ocean

Development of an International MPA Campaign (continued)

Key Audiences, continued:

- **Influencers** – aid agencies (national and international, as well as private foundations), non-governmental organizations (local, national and international), and a cadre of key people from the art and culture community (including socially aware artists, known and influential celebrities, emerging and innovative leaders)
- **Corporate Sector** – businesses who rely directly or indirectly on the ocean and its resources
- **General Public:**
 - * Marine-interested public: individuals who already have an interest in the marine environment (eat seafood, visit aquaria, dive, fish)
 - * Youth: Younger segment of the general population, ages 5 to 21
 - * Marine park communities: members of towns and cities that lie adjacent to, or near a marine park

A more detailed campaign communications plan is under development. The campaign will launch soon, and continue through Oceans Day 2015. ONMS and its key partners (the National MPA Center, France's L'Agence des aires marines protégées, and NAUSICAA) will coordinate the campaign. The organizers hope to recruit a broad range of organizations to assist in carrying out the messages of the campaign. Any organization interested in joining the campaign is heartily welcome and should contact Matt Stout (matthew.stout@noaa.gov) or Liz Moore (elizabeth.moore@noaa.gov).

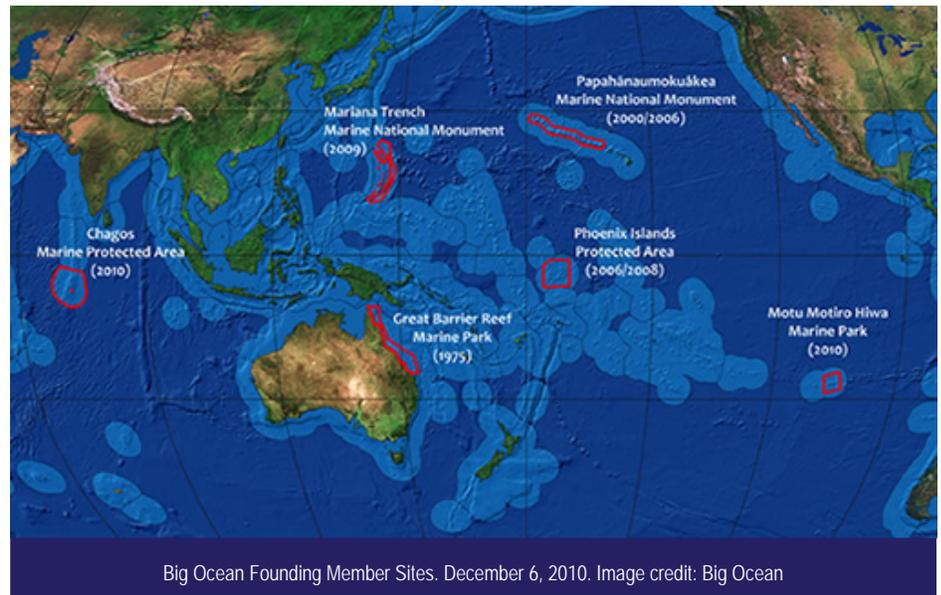


Big Ocean MPAs

- By Abigail Jaffe, National MPA Center

Conventional MPAs are relatively easy to manage. But large-scale or Big Ocean MPAs, which contain or exceed 100,000 square miles of the ocean, are more difficult to oversee and require more coordination and organizational strategies.

In the past two years, five of the largest MPAs in the world have been established or announced, proclaiming the peak of large-scale MPA membership and engagement. To protect these great stretches of ocean, which jointly comprise 900,000 square miles (roughly the size of the Mediterranean Sea), the Big Ocean Network was founded in December of 2010. The network links managers of the following large-scale MPAs: Great Barrier Reef Marine Park (Australia), Phoenix Islands Protected Area (Kiribati), Marianas Trench Marine National Monument (U.S.), Motu Motiro Hiva Marine Park surrounding Sala y Gomez Island (Chile), and Papahānaumokuākea Marine National Monument (U.S.)



Management Challenges

Management of any MPA may produce challenges, but in Big Ocean MPAs, marine management challenges are amplified because of the area's size. They also present unique challenges only relevant to such large scales of ocean. Inadequate enforcement, logistical challenges and travel costs, and resource allocation limitations are some of the various challenges that Big Ocean MPAs must meet. Other challenges include maintaining public awareness and interest considering the geographic distance of Big Ocean MPAs from human activity and poor understanding of how "source-sink" reproductive and recruitment dynamics relate to native species, particularly economically valuable highly migratory species that utilize large-scale MPAs.

Mission of the Big Ocean Network

The Big Ocean Network, in its pilot conference in Honolulu on December 6, 2010, assembled the managers of five of the world's largest seven MPAs in the world. The meeting aimed to create a network to help managers of large-scale MPAs be more efficient and effective by sharing practical experience and knowledge with each other, agree on a proposed set of claims and activities for the network, and to develop a shared statement of commitment to the Big Ocean Network.

As TukabuTeroroku, the Phoenix Islands Protected Area director, stated, "We share many threats and challenges and this is a foundation for working together to find solutions for problems common to us all, such as climate change, marine pollution, and illegal fishing."

These large sites are diverse in their marine life, ecosystems, and aquatic composition, but they share much in common, including similar goals.

Susan White, Project Leader of the Marianas Marine National Monument, noted, "The value is in getting this group together to communicate lessons learned. While many of our managed areas may be very different, they are each very important in sustaining marine ecosystems. We are all connected."

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Big Ocean MPAs (continued)

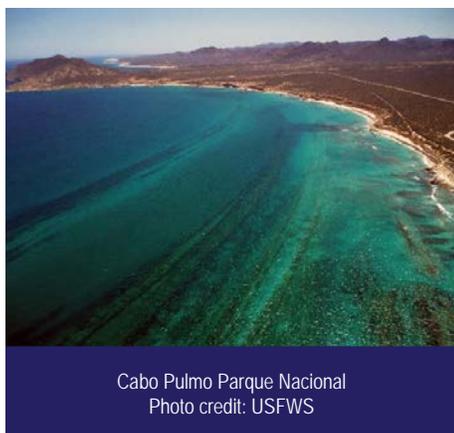
The Future of Big Ocean MPAs

Big Ocean MPA managers, through the network, aim to improve management across and among geographic areas, identify gaps and provide guidance to better align science, management, and community, and aid in the development of future large-scale sites to build upon experiences. The network also strives to provide a vehicle to increase engagement with regional and international bodies and NGOs that are involved in marine conservation, and that are particularly interested in supporting the role of Big Ocean sites.

The hope is that not only will large-scale MPAs protect marine environments, but that they will preserve the oceans for broader human use as well. “By helping to protect our precious ocean ecosystem, large-scale marine protected areas provide benefits to us all. They not only protect nature but provide wider benefits to society, both now and in the future,” said Andrew Skeat, General Manager of the Great Barrier Reef Marine Park Authority.

Big Ocean managers have launched a website, www.bigoceanmanagers.org, and have remained in communication to raise awareness about the relevance and importance of conservation and sustaining our largest natural and pristine treasures.

The North American Intergovernmental Committee on Cooperation for Wilderness and Protected Areas Conservation



Cabo Pulmo Parque Nacional
Photo credit: USFWS

The United States, Canada, and Mexico share a continent with vast, interconnected wilderness and other land, marine, and coastal areas protected in a natural state. Forests, mountain ranges, wildlife species, freshwater systems, and oceans and marine life extending across boundaries are treasured for their intrinsic and practical values. To strengthen interagency cooperation on the conservation and management of these areas, the heads of federal land management agencies that oversee wilderness and protected areas in the three countries* signed a Memorandum of Understanding (MOU) on Cooperation for Wilderness and Protected Areas Conservation at the 9th World Wilderness Congress in 2009. The MOU heralds a growing global understanding of the importance of wilderness and protected areas in the 21st century and the critical role it plays in response to climate change, the extinction crisis, quality water shortages, and other environmental decline.

The North American Intergovernmental Committee on Cooperation for Wilderness and Protected Areas Conservation (NAWPA Committee), created to implement the MOU, initially established four working groups, to focus on specific topics: 1) The Role of Wilderness and Protected Areas in Responding to Climate Change 2) Ensuring the Relevance of Wilderness and Protected Areas in a Changing World 3) Understanding and Communicating the Value of Ecological Goods and Services Provided by Wilderness and Protected Areas and 4) Marine Wilderness and Protected Areas (Marine Group).

The NAWPA Committee is interested in transboundary issues such as public education and outreach on challenges facing marine protected areas, marine invasive species best management practices, and preventing and managing marine debris. An initial product of the Marine Group was a consensus document that addressed the definition of marine wilderness and general management objectives. The Marine Group is currently identifying examples of stakeholders and conservationists coming together to establish marine protected areas that are functioning to meet biological, social, and economic priorities. Contact Nancy Roeper, FWS, at nancy_roeper@fws.gov or Dr. Bret Wolfe, at bret_wolfe@fws.gov for more information.



The Orca (*Orcinus orca*) is a species that travels throughout the U.S., Canada and Mexico.
Photo credit: USFWS

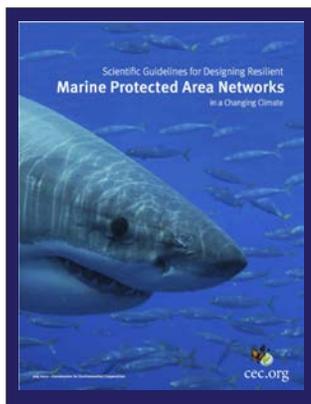
* CEO of Parks Canada Commissioner of Mexican National Commission for Natural Protected Areas (CONANP); Director of USNPS; Director of USFWS; Director of USBLM; Chief of the US Forest Service; Director of USDA Office of Environmental Markets

Adapting North America's Marine Protected Areas to a Changing Climate

- By Karen Richardson, Commission for Environmental Cooperation

Swim up North America's coast like a whale, and you will see that it is changing. Climate change is affecting virtually every aspect of the world's marine ecosystems. And North America's nearly 2,000 marine protected areas (MPAs) are already seeing the impacts.

To begin addressing these impacts, scientists from Canada, Mexico and the United States have collaborated through the International Council for the Exploration of the Sea (ICES) to review the effects of climate change on MPAs and MPA networks. The results of this work—*Scientific Guidelines for Designing Resilient Marine Protected Area Networks in a Changing Climate*, published in June 2012—will help scientists, MPA planners and managers improve their ability to design, manage, assess and adapt MPAs and MPA networks in light of potential climate change at national and continental scales.



North America is an ideal region to pilot this global effort because of the interconnectivity of its oceans and their diverse marine life. Marine protected area experts and officials in Canada, Mexico and the United States have been working together over the past decade through the Commission for Environmental Cooperation's (CEC) North American Marine Protected Areas Network (NAMPAN) to help connect and protect ecologically and economically important marine areas in the three countries, providing a solid foundation to study MPAs across North America's international borders.

The *Scientific Guidelines for Designing Resilient Marine Protected Area Networks in a Changing Climate* document was developed from a larger report by the Study Group on Designing Marine Protected Area Networks in a Changing Climate (SGMPAN). These guidelines were prepared by Robert J. Brock (NOAA MPA Center), Ellen Kenchington (Fisheries and Oceans Canada) and María Amparo Martínez-Arroyo (Universidad Nacional Autónoma de México), with the input of the ICES-SGMPAN Working Group.

Marine protected areas and marine protected area networks can provide an effective tool to maintain the critical components of healthy marine ecosystems: native species diversity, connectivity, and habitat heterogeneity. The Guidelines provide specific examples and steps for scientists and managers to follow when evaluating the impact of climate change on these components. They also define the role marine protected areas can play in adapting and mitigating the effects of climate change. For example, MPAs and MPA networks can help:

- Connect critical places for life stages of key species as species' distributions shift or shrink.
- Support the abundance and size structure of upper trophic levels and native species richness.
- Reduce other pressures such as fishing.

Four guidelines:

Guideline 1: Protect species and habitats with crucial ecosystem roles, or those of special conservation concern.

Guideline 2: Protect potential carbon sinks.

Guideline 3: Protect ecological linkages and connectivity pathways for a wide range of species.

Guideline 4: Protect the full range of biodiversity present in the target biogeographic area.

Each guideline is divided into four steps:

1. Identification of the issue.
2. Assessment of the stressors and threats.
3. Determination as to whether the traits vulnerable to climate change impacts can be mitigated by MPAs or MPA networks.
4. Assuming MPAs can mitigate traits identified in Step 3, how the subject might respond in space and/or time.

Source: *Scientific Guidelines for Designing Resilient Marine Protected Area Networks in a Changing Climate* (CEC 2012) www.cec.org/marine

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Adapting North America's MPAs to a Changing Climate (continued)

The four guidelines and steps within the guidelines (see box on page 9) also identify some of the international benefits of national MPA networks linking to form international networks. These include the protection of an ecosystem or species that cannot be adequately protected in one country, migratory species, enhanced level of attention to transboundary MPAs, international collaboration to better meet challenges and issues, and strengthened capacity through shared experiences.

Experts from the three countries discussed the impact of climate change on different species groups. For example, the marine mammal experts discussed the impacts of climate change on the entire range of several species, including how it will impact different life stages across their entire range. This international collaboration was the first of its kind.

The Guidelines were the basis for a symposium at the American Association for the Advancement of Science (AAAS) annual meeting 16-20 February, 2012 in Vancouver, B.C., entitled: Designing Marine-Protected Area Networks Within Changing Global Climate Conditions, organized by Dr. Robert J. Brock.

In addition to the Guidelines, a practitioners manual for MPA network planners and managers is also being developed and will be included in the final toolkit, available in fall 2012.

To download the Guidelines, please visit: www.cec.org/marine.

Short Films Highlight Benefits of North America's MPAs



Through a unique collaboration of the CEC, marine protected area agencies—including NOAA's National Marine Protected Areas Center—and Coastal America's Coastal Ecosystem Learning Center network of aquariums and research facilities, a new series of short films has been produced to highlight the vital role played by North America's marine protected areas to support communities that depend on marine resources, provide exciting recreational experiences, enhance our scientific understanding, and help protect a large number of species, restore fisheries, and conserve key habitats.

These films, launched on World Oceans Day at National Geographic and the Smithsonian Museum of Natural History in Washington, DC, are now showing at aquariums, marine protected areas, and national parks in Canada, Mexico and the United States. They are also available online at <http://www.cec.org/mpa>.

For more information, contact: Karen Richardson, Program Manager, Marine and Terrestrial Ecosystem, Commission for Environmental Cooperation, at krichardson@cec.org, 514-350-4326; or visit: www.cec.org/marine.

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.

The next issue of *MPA Connections* will be published in Fall 2012. Comments, suggestions and news items can be sent to the editor, Kara.Yeager@noaa.gov.



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