MPA news

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# Gulf of Mexico Oil Spill: The Experiences of MPA Managers So Far, and What Lessons Can Be Learned

It is mid-July and the Deepwater Horizon oil well blowout in US waters of the Gulf of Mexico is still spewing crude oil from the underground field into the water column. The spill began nearly three months ago, and several million barrels of oil have been released from the seafloor wellhead. Oil company BP and the US Coast Guard continue efforts to shut off the well's flow. The latest efforts involve installing a new cap on the broken wellhead and drilling relief wells kilometers below the seafloor. Neither strategy is guaranteed to be successful.

The spill is an environmental catastrophe. Thick sludge has come ashore in many areas of the US Gulf Coast, oiling wildlife, beaches, and mangroves. BP's heavy use of dispersant chemicals, applied at the source of the blowout, has resulted in large plumes of emulsified oil suspended in the water column. The US National Marine Fisheries Service has closed a large area of its Gulf waters to fishing in order to ensure public safety. (For updates on the fishing closure, go to http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm.)

There are several dozen MPAs in the US Gulf of Mexico; a full list is at http://mpa.gov/pdf/helpful-resources/horizon_spill_mpas_june.2010.pdf. While some of the MPAs have experienced direct impacts from the spill, others are still waiting and watching — hoping the currents and weather keep the spill's worst effects from their sites. In any case, each MPA has mobilized a response team and prepared for any impacts from the spill. This month, *MPA News* hears from three sites on their response so far.

### Is MPA News useful to you?
**How could it be improved?**

The 2010 MPA News reader survey is at **www.mpanews.org**. If you have not already participated, please take a few minutes to do so. It is just seven quick questions, and your answers will help make MPA News as useful as it can be.

Three respondents will be selected to receive an official MPA News canvas tote bag. Thank you!

## Breton National Wildlife Refuge

**Background:** The Breton National Wildlife Refuge is the oldest MPA in the US. It was designated in 1904 to protect its populations of seabirds and shorebirds, which nest on the refuge's Chandeleur and Breton Islands. Among its species is the brown pelican, which was removed from the US Endangered Species List last year following evidence of population recovery.

**By James Harris,** Supervisory Wildlife Biologist, Southeast Louisiana Refuges, US Fish and Wildlife Service

On impacts of the spill:
"Of the national wildlife refuges in Southeast Louisiana, the most heavily impacted one at this time is Breton NWR. There has been some direct oiling of the beach/marsh habitats but it is scattered and not as heavy as that found elsewhere along the coast. There has been some oiling of adult pelicans, a small number of pelican chicks, and some royal and sandwich terns. This oiling has been light to moderate in most cases and the birds act and behave normally. No actions are needed at this time to remove birds or clean habitats within the colonies."

On management response:
"When the spill happened, the first thing we did was conduct a general assessment of the islands, documenting the conditions so that we could come back later and determine if anything had changed. We looked at the number of birds, the species of birds, and any potential early impacts they exhibited, because the birds don't stay on the islands all day — they go out into the ocean to forage for food. So even before oil came to the refuge, the birds could potentially encounter oil or oiled debris farther out into the Gulf.

"Refuge managers took steps to ensure that all possible protective measures that could be taken were deployed in a timely manner. This included the deployment of containment boom, Navy Sea Boom, absorbent boom, and pom-pom boom, as well as the regular maintenance of each of these. The efforts have paid off: the boom has done its job for the most part in preventing large amounts of oil from reaching the islands and impacting the nesting colonies. We monitor the colonies on

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almost a daily basis now so we can detect changes and take the appropriate action when needed."

On lessons learned:
"There are several lessons that can be learned from our experience for both planning and management.

"In management:
1) Do all you can to make sure that your areas provide the best quality habitat. Healthy habitat can support more wildlife per unit area and is more resilient if recovery is needed.

2) If protective measures can be built into the area's management plans, do so. By this I mean restoring beaches, marshes, or other habitats where they can act to protect a larger area.

3) If protective measures cannot be built into the system, then choose areas for restoration, intensive management, etc. that are more naturally protected by topography, hydrology, etc.

"In response planning:
1) Response time is key. While we had the benefit of several days and even weeks in some cases to prepare for oil to reach the shore, most times you do not have this luxury. Protective strategies (i.e., identifying your highest priority areas for protection) — and the equipment to implement these strategies — must be readily available and quickly accessible.

2) Work ahead of time with the other agencies and groups that will be involved in a spill response to make sure everyone understands what your needs are and why your needs should be met. Get to know the people involved and communicate.

3) Stay involved during the response. As other issues arise in other areas, you must make sure that your needs do not go unaddressed."

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## Flower Garden Banks National Marine Sanctuary

**Background:** This MPA, off the coast of the states of Texas and Louisiana, is named for its colorful "gardens" of corals and sponges, which provide important habitat for shallow-water Caribbean reef species. The site contains a working gas-production platform. More than two-dozen additional oil and gas platforms are within kilometers of the MPA boundary. *MPA News* reported on Flower Garden Banks National Marine Sanctuary in the February 2002 and May 2004 issues.

**By G.P. Schmahl**, Superintendent, Flower Garden Banks National Marine Sanctuary

On impacts of the spill:
"As of the date of this writing (7 July 2010), the Flower Garden Banks NMS has not been directly impacted by the Deepwater Horizon blowout. The sanctuary is located approximately 320 miles west of the blowout site, and prevailing winds and currents have carried the spilled oil mostly to the north and east. However, recent tropical weather activity in the Gulf of Mexico has facilitated a more westward movement of the spill. NOAA's Office of Response and Restoration has been issuing an oil spill trajectory analysis on a daily basis. This information may be viewed at www.geoplatform.gov/gulfresponse/index.html. As of 7 July, the edge of the projected 'uncertainty zone' — the area in which models predict oil could be present but has not been seen physically — has reached within 60 miles of the sanctuary. So the potential for impact is of significant concern.

"Spilled oil from the Deepwater Horizon could reach the sanctuary in two primary ways. First, oil could float on the surface from the blowout site. If this were to occur, it is likely that by the time it got to the sanctuary, it would be significantly weathered, and arrive as clumps of emulsified oil and tarballs. As long as the blowout is stopped sometime soon, it is expected that the amount of oil that could reach the Flower Garden Banks on the surface would be limited, and the impact would hopefully be minimal.

"The other pathway of spilled oil is much harder to track and evaluate. The extensive use of dispersants at the blowout site has resulted in a significant component of the oil breaking down into much smaller particles. There is concern that this dispersed oil will enter the food chain in a number of ways, as well as form subsurface plumes that could be transported by deepwater currents in directions quite different from surface currents. If such a plume were to reach the Flower Garden Banks, the impact could be extremely significant, and could cause mortality of the coral reef or deep coral community."

On management response:
"The primary actions that the sanctuary has taken to date are associated with evaluating the existing (pre-oil) condition of sanctuary resources and establishing a sampling program to determine whether hydrocarbon contaminants associated with the Deepwater Horizon blowout have reached this area.

"A number of interagency technical working groups have been created to develop assessment protocols for various components of the ecosystem (birds, marine mammals, sea turtles, marshes, coral reefs, etc.). Each group contains representatives of the primary federal and state natural resource agencies as well as representatives of BP as the responsible party for the cleanup. The first stage of this assessment is to ensure that for those

areas that are not yet significantly impacted by the spill, there is adequate baseline information on the status of marine resources to document detrimental changes caused by the spilled oil. The sanctuary is fortunate: there is a long-term coral reef monitoring program that has been in place since the early 1980s.

"The other component of the baseline assessment is to determine what the background levels of hydrocarbon contamination are at the sanctuary. The sanctuary has already collected sediment samples from the three banks within the MPA (East Flower Garden, West Flower Garden and Stetson Banks), and will deploy semi-permeable membrane devices (SPMDs) at the banks as well. SPMDs are passive sampling devices that accumulate organic compounds in an aquatic environment. These will be periodically retrieved and analyzed for the presence of hydrocarbons."

On lessons learned:
"MPA managers must be involved in planning and decision processes related to offshore oil/gas exploration and development in the area of influence for their MPAs. The extent of this area will depend upon a variety of environmental factors (current and weather patterns, etc.).

"In the Gulf of Mexico, this involvement can occur at two levels. The first is during consideration of the environmental analysis and area-wide planning for future oil and gas lease sales. It is at this point that overall policies are established for protection of marine resources and oil spill response. All MPAs and other features of importance should be identified upfront in the oil and gas planning process so that basic levels of protection can be established.

"The second area of involvement must include participation in the review of development proposals within the immediate area of the MPA. In the case of our sanctuary, an agreement with the US Minerals Management Service allows the sanctuary to review and comment on any offshore oil and gas development proposal within approximately 4 miles of its boundaries. This ensures that the sanctuary is aware of all activity in the vicinity, and allows concerns and questions to be raised in the review process. Administrators of MPAs should have good working relationships with the regulatory entities that govern oil and gas exploration so that their concerns can be addressed.

"MPAs must have a monitoring program for their resources of concern so that possible negative impacts related to this oil and gas activity can be identified as early as possible. The Deepwater Horizon incident is an extreme case scenario. It is more likely that areas may be subject to less severe, but perhaps chronic impacts from smaller spills and releases. The monitoring program should be sensitive enough to identify even subtle changes to biological communities."

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## Florida Keys National Marine Sanctuary

**Background:** The Florida Keys National Marine Sanctuary contains the third-longest barrier reef system in the world. The sanctuary extends off the southern tip of the state of Florida, and its western boundary is 450 nm from the Deepwater Horizon site. Since the spill first occurred, there have been fears the Loop Current in the Gulf of Mexico would pick up the spilled oil and carry it eastward through the Florida Keys, eventually transporting it northward up the US Atlantic Coast.

**By Karrie Carnes**, Communications Coordinator, Florida Keys National Marine Sanctuary, **and Scott Donahue**, Florida Keys NMS Acting Science Coordinator

On impacts of the spill:
"The Florida Keys have been extremely fortunate with the way Mother Nature has worked so far. There have been no direct impacts yet from the Deepwater Horizon blowout. Oceanic currents and the eddy Franklin, which pinched off from the Loop Current in June, continue to keep oil hundreds of miles away from the Keys.

"Given the distance of the wellhead from the Florida Keys, the forecasts are that any oil product — if it were to arrive here — would be highly weathered and likely in the form of tar balls. In mid-May, tar balls were reported at several locations in the Florida Keys. The tar balls were sent for testing but none were determined to be related to Deepwater Horizon. The US Coast Guard experienced a 400% increase in pollution reports in May in the Florida Keys, and attributed this to an increase in awareness of what tar balls look like and heightened vigilance by the public. Coast Guard investigators have been unable to identify the different sources of the tar balls found to date in the Keys. They may be attributed to natural seeps in the seafloor, or to the more than 2000 large cargo ships and tankers that transit the Florida Straits each month."

On management response:
"In early May, in preparation for the potential need to activate an incident command post in the Florida Keys, the Unified Command [which oversees the national response to the Deepwater Horizon spill — www.deepwaterhorizonresponse.com] identified members of such a command post. These included the US Coast Guard, NOAA's Florida Keys National Marine Sanctuary, US Department of the Interior, Florida Department of Environmental Protection, Monroe County Department of Emergency Management, and

### Past coverage of oil spills & response planning in *MPA News*

**February 2001:**
- Case Study of a Spill Response: How Galápagos Managers Handled the *Jessica* Spill
- Tips on Oil Spill Response Planning

**September 2006:**
- Oil Spills in Lebanon and the Philippines Highlight Spill Threat to MPAs
- Advice for MPA Managers on Oil Spills: Interview with Jim E. Peschel

Back issues are available at **www.mpanews.org.**

BP. The members have since been engaging with each other via teleconferencing, e-mail, and face-to-face meetings to ensure planning efforts are well-coordinated.

"The sanctuary leads the Environmental Unit of the command post. The Environmental Unit has provided recommendations for response options that would be appropriate both for the type of product most likely to impact the Keys (i.e., tar balls) and for the range of habitats that exist in the sanctuary. Any necessary response would need to be the right response, at the right time, and for the right habitat type. The shoreline response matrix for tar balls, created by the Environmental Unit, consists of 19 countermeasure types (from "no action" to manual removal, water washing, vacuuming, in situ burning, nutrient enhancement, and more) and accounts for 10 shoreline types (exposed rocky shores, man-made structures, sand beaches, gravel beaches, exposed tidal flats, sheltered tidal flats, mangroves, etc). If and when something happens here from the spill, we are truly prepared."

On lessons learned:
"The real-time response to tar balls in mid-May, coupled with a Coast Guard nearshore oil spill exercise in February 2010, helped solidify the interagency collaboration necessary to respond to any impacts from Deepwater Horizon. Even before the spill we already had a great working relationship with other agencies in the Keys. There are ten state parks within the Keys, four national wildlife refuges, and three national parks, and the Coast Guard is active in monitoring and surveillance efforts in the region. Since the spill, people from these agencies who already met regularly to discuss various resource management issues have continued to collaborate to ensure the preparedness of the Florida Keys.

"The Florida Keys are one of the best-studied reef ecosystems in the world. With 16 years of water quality monitoring and decades of coral reef monitoring, we have our finger on the pulse of the ecosystem down here. Having this monitoring infrastructure in place will be essential to assessing any future impacts from the spill."

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## Is offshore drilling worth the environmental risk of spills?

In the wake of the Deepwater Horizon spill, governments around the world are double-checking spill response plans for their own marine areas and coastlines, particularly in areas of offshore drilling. But despite the catastrophic impact the spill may have on the Gulf of Mexico ecosystem, no government is taking steps to outlaw offshore drilling all together in its waters. The economic pressure against such a move is too great.

The Obama Administration in the US has placed a moratorium on deepwater drilling following the spill, but with a condition that it will be allowed again after steps are taken to improve spill prevention and mitigation. Italy voted in June to ban offshore drilling within 12 nm of its MPAs, but will continue to allow drilling outside those zones. In Canada, under proposed regulations for what is expected to be the nation's first Arctic MPA, the government intends to allow limited exploration and development of petroleum inside the site's boundaries (**www.gazette.gc.ca/rp-pr/p1/2010/2010-04-10/html/reg2-eng.html**).

Assheton Carter formerly managed the Energy & Biodiversity Initiative (EBI), a partnership among several NGOs and energy companies to develop best practices for oil and gas development (**http://theebi.org**). Under Carter, the EBI produced a set of guidelines to help oil companies protect biodiversity through the entire span of offshore oil and gas operations. *MPA News* interviewed Carter for the May 2004 issue ("Mixing Oil and Water, Part I"), and spoke with him again this month following the Deepwater Horizon disaster. (Carter is now senior vice president of global engagement and strategy for Pact, an NGO that advances socially responsible development around the world.)

**MPA News:** Is offshore drilling worth the potential cost to the environment (including MPAs) of occasional massive spills?

**Carter:** Until we get serious about developing alternatives to oil, we must accept that events like the Deepwater Horizon blowout are, in fact, predictable occurrences in an era of "no more easy oil". We can only continue to push for better operational and safety practices, tighter regulations, and more vigilant oversight of the oil industry.

**MPA News:** The EBI, of which BP was a member, developed good practices for preventing impacts on biodiversity from oil exploration and development, including practices for preventing and managing offshore spills. Did BP follow those practices?

**Carter:** Along with everyone else, I wait impatiently to get a clearer picture of why and how the spill happened. The EBI guidelines were designed for companies to integrate into their own environmental management systems, not to replace those systems. I believe that what we are witnessing at the Deepwater Horizon site is a system failure with devastating results. Operating guidelines, emergency plans, best practice manuals, and the like are available to all; however, the operating values and culture of a company determine its performance.

**For more information:**
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# How Close Is the MPA Field to Meeting Its Global Targets?

Last decade, multiple international goals were set for the protection of oceans through MPAs, with deadlines for reaching them. For some of the main goals, the deadline is now just two years away:

- At the 2002 World Summit on Sustainable Development (WSSD), national leaders agreed to create representative networks of MPAs worldwide by 2012.
- At the 2003 World Parks Congress, IUCN members called for a global system of MPA networks to exist by 2012, including "strictly protected areas" amounting to at least 20-30% of each habitat.
- In 2005, a subsidiary body of the UN Convention on Biological Diversity (CBD) called for 10% of all marine and coastal ecological regions to be conserved in MPAs, also by 2012.

When we last reported on the field's progress toward these goals, the trends were not promising (*MPA News* 7:5). At the time (five years ago), an academic analysis of worldwide MPA designations indicated the CBD goal would not be met until 2069. Even worse, trends indicated the World Parks Congress goal would not be met until 2085 at best.

In the past five years, however, the MPA field has experienced the designation of some massive protected areas that have substantially increased global MPA coverage, including in the Chagos Islands (*MPA News* 11:6) and the Northwestern Hawaiian Islands (8:1). And several governments have accelerated their designation of MPAs with the WSSD and CBD commitments in mind. Russia is among the latest to announce plans to expand MPA coverage, citing CBD commitments (see Notes & News on page 7). This past May, the parties to the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) formally endorsed the development of a network of MPAs in the Southern Ocean by 2012 to meet the international targets.

How much closer the MPA field is now to meeting the targets is unclear. Answers are expected this October when the IUCN World Commission on Protected Areas and the UNEP World Conservation Monitoring Centre will co-release an updated assessment of global progress on ocean protection. The assessment will coincide with the CBD's 10th Conference of the Parties (COP 10), to be held in Nagoya, Japan.

Partial answers are already available from the World Database on Protected Areas, which provides year-by-year statistics on protected area coverage from 1990 to 2009 (www.wdpa.org/Statistics.aspx). However, the statistics only consider MPAs within a country's territorial sea (out to 12 nm), not within its much larger Exclusive Economic Zone (out to 200 nm). And the figures are broken down only by country and geographic region, not by habitat or ecological region.

### Meeting a target for high seas MPAs

Any assessment of MPA coverage relies in part on how one defines the term "marine protected area". This is particularly the case for the high seas, where regional fisheries management organizations are increasingly closing off areas to bottom-contacting gear to protect sensitive seafloor habitats. Do these gear closures — some of which are temporary and most of which still allow fishing for pelagic species — count as MPAs?

The question is relevant to another conservation target set last decade at the World Parks Congress: that at least five ecologically significant MPAs be designated on the high seas by 2008. The deadline passed two years ago with little global notice. But there are now roughly two dozen fishing closures in effect on the high seas, according to researchers at the Institute for Marine Resources & Ecosystem Studies (IMARES) in The Netherlands. (Their animated map of the closures, viewable in Google Earth, is available at www.highseasmpas.org.)

So does this mean that at least one global target for MPAs has been met — albeit one that was not widely promoted? Jeff Ardron, director of the High Seas Program at the Marine Conservation Biology Institute, says that it all depends on if you define a fishery closure as an MPA or not. "In any case, protections are now starting to be applied to the high seas," he says. "Regardless of whether they are permanent or of a fixed term, there is still an important new precedent here with the recognition that large areas of the high seas do require enhanced protections."

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**www.mpanews.org**
searchable back issues, MPA-related conference calendar, and more

# MPA Perspective: Standardizing the Effective Management of MPAs in Italy

**By Carlo Franzosini, Marco Costantini, Saul Ciriaco, Maurizio Spoto**
Miramare Marine Protected Area, Trieste, Italy

WWF-Italy has launched an initiative to provide high-level training and practical support for the management of Italian MPAs. The project, named ISEA (*Interventi Standardizzati Gestione Efficace Aree marine protette* — Standardized Actions for the Effective Management of MPAs) aims to promote efficiency and effectiveness in the management and conservation of marine and coastal life. It focuses on five of the most representative Italian MPAs, which also happen to be recognized on the international level as SPAMIs — Special Protected Areas of Mediterranean Importance, under the Barcelona Convention (see box for the participating SPAMIs).

**The participating SPAMIs**

The five sites participating in this project are the 1.2-km$^2$ Miramare MPA, Plemmirio MPA (25 km$^2$), Portofino MPA (3.5 km$^2$), Tavolara – Punta Coda Cavallo MPA (107.3 km$^2$), and Torre Guaceto MPA (22.3 km$^2$).

The project will strengthen the network of Italian SPAMIs by ensuring each one meets basic requirements as called for under the Barcelona Convention:

- That the protected area must have a management body, endowed with sufficient powers, means, and human resources to prevent and/or control activities likely to be contrary to the aims of the protected area;
- That a management plan has to be in force and officially adopted; and
- That the area has to have a monitoring program that includes the identification and monitoring of a certain number of significant parameters for the area in question. This is to allow assessment of the state and evolution of the area, as well as the effectiveness of protection and management measures implemented, so that they may be adapted if necessary.

The project is also in line with commitments undertaken by Italy's ratification of the Convention on Biological Diversity: namely to establish by 2012 in Italy and in the Mediterranean Sea a representative network of MPAs that are effectively managed, consistent with international law, and based on scientific information.

## Implementation

The project will be coordinated by a board consisting of a representative of the Ministry of the Environment, one of WWF-Italy, and the director of each participating SPAMI. In turn, this board will advise and monitor a WWF-Italy team that will provide tutoring at the MPA level and also perform project monitoring and assessment.

The project's objectives include:

- Collecting and classifying documents concerning management of the SPAMIs, with the intent of sharing common management elements;
- Standardizing the way management plans are organized and presented (to the administration, to stakeholders, and to the public);
- Producing a summary of the activities undertaken by the national network of SPAMIs, accompanied by the most appropriate management performance indicators; and
- Organizing information to assess biophysical, socio-economic, and management performance for each SPAMI and the network as a whole.

Over the course of the project, the team anticipates taking the following actions:

- Studying available tools and guidelines, including *Open Standards for the Practice of Conservation*; IUCN's *How is your MPA managed?* and *How is your MPA doing?*; and UNEP's *Procedure for the revision of the areas included in the SPAMI List*;
- Organizing a training seminar on the best use of these tools, addressed to directors and staff of SPAMIs but also open to other MPAs that wish to attend;
- Providing specific tutoring to each SPAMI to help implement the chosen management tools and to suit the site's need for technical assistance;
- Involving SPAMI personnel in applying management tools that support the conservation actions required for inclusion in the SPAMI list;
- Translating and adapting MIRADI conservation planning software (http://miradi.org) to help MPAs draft and plan their actions for biodiversity protection; and
- Writing a manual to describe the context and development of this initiative, and the basis of its methodology on the use of available tools for managing Italian SPAMIs.

We plan to accomplish the entire project by March 2011. Ultimately, lessons learned from it will be shared through the Mediterranean Basin.

**For more information:**
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# Notes & News

### Scientists call for large no-take areas

More than 260 marine scientists from 39 countries have signed a statement calling for the designation of a global system of very large no-take MPAs. Such a system would help ensure the future abundance of top marine predator species and would match the scale of management to the scale of important ecosystem processes, they say.

"Large reserves, where ecological processes and functions can operate much as they have for millennia, are virtually missing from the marine conservation and management portfolio," state the scientists. "Globally, there are only a small number of intact regions where it is possible to establish, monitor, and protect very large marine reserves. These regions should be an urgent priority for protection, based on strong public and political support."

The statement was organized by Global Ocean Legacy, a project of the Pew Environment Group that seeks to identify and protect very large marine ecosystems over the next five years. Ph.D. and senior scientists are invited to support the statement, which is available at www.globaloceanlegacy.org.

### Albania designates first MPA

In late April, the Albanian Council of Ministers designated the nation's first marine protected area. The Sazani Island-Karaburuni Peninsula MPA covers 126 km$^2$, and provides habitat for at least 36 endangered or otherwise protected species, including loggerhead turtles, bottlenose dolphins, and Mediterranean monk seals. The site also holds significant cultural value: portions of it served as important harbors hundreds and thousands of years ago. Shoreline rocks in the MPA's Grama Bay still feature abundant inscriptions in Latin and ancient Greek. For more information on the MPA, go to http://medpan.org/?arbo=article&sel=ID&val=502.

### US national MPA system adds 29 more sites

The US National System of Marine Protected Areas added 29 more sites in June, representing the conclusion of a second round of site nominations. The new additions bring the national system to a total of 254 sites. To join the system, a site must be nominated by its managing agency and the nomination must be approved by the National Marine Protected Areas Center. Information on the new additions and the system as a whole are at www.mpa.gov.

A third round of nominations is already open for public comment. It comprises four sites, and all four are Tilefish Gear Restricted Areas — representing the first time that MPAs designated under the US's primary fisheries management law (the Magnuson-Stevens Act) have been nominated to join the country's MPA system.

In other US MPA news, five areas of deepwater coral habitat off the nation's southeastern coast will become off-limits to bottom-disturbing fishing gear as of 22 July. The closures, recommended by the US's regional fishery management council in 2009 and approved this year by the National Marine Fisheries Service, will cover 23,000 square miles.

### Canada designates Gwaii Haanas National Marine Conservation Area

In June, Canada designated the Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site, a 3500-km$^2$ MPA off the coast of the province of British Columbia. The MPA surrounds an archipelago of 138 islands known as Haida Gwaii. The land there is already managed as the Gwaii Haanas National Park Reserve. Combined, the marine and terrestrial ecosystem is now protected from sea bottom to mountaintop.

Both the MPA and the terrestrial protected area are co-managed under an agreement among Parks Canada (the federal parks agency), Fisheries and Oceans Canada (the federal oceans management agency), and the Haida Nation — the government of the aboriginal Haida people. For more information on the MPA and its designation, go to www.pc.gc.ca/apps/cp-nr/release_e.asp?bgid=1352&andor1=bg.

### Russia to expand protected area system

Russia will add 10,000 km$^2$ in marine area to its national protected area system by 2020, its government announced in July. The nation will also expand its terrestrial protected areas. The moves are intended in part to help the country meet its international obligations to establish effective protected area systems, including under the UN Convention on Biological Diversity. For a press release by WWF-Russia, whose research informed Russia's planning, go to http://wwf.panda.org/wwf_news/news/?uNewsID=194088.

### Vietnam announces plan to designate 16 MPAs

In May the Vietnamese government announced a plan to designate 16 new MPAs within the next five years (2011-2015). These new MPAs are expected to cover 0.24% of the country's territorial waters. Roughly 30% of the total area in the new MPAs will be no-take. The government also intends to designate several additional MPAs from 2016-2020, as well as expand existing sites. For more information, go to http://myvietnamnews.com/2010/05/29/460-bln-vnd-earmarked-for-marine-reserves.

### Call for proposals for IMCC2

The Second International Marine Conservation Congress (IMCC2) has released a call for proposals for symposia, workshops, and focus groups. IMCC2 will be held 14-18 May 2011 in Victoria, British Columbia, Canada. Proposals must be submitted online by 31 August 2010. Details are at **www2.cedarcrest.edu/imcc/IMCC2_Call_for_proposals.pdf**.

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### Guidance on size and spacing of MPAs

A new report commissioned by Natural England provides suggestions on how to maximize connectivity among MPAs and ensure viability of individual sites within England's MPA network, which is under development. The publication bases its recommendations on a review of adult movement and larval dispersal of fish species in UK waters. Connectivity and viability are two of the seven network design principles Natural England and partners are using to identify sites for an ecologically coherent MPA network, as called for under England's Marine and Coastal Access Act. The report *Guidance on size and spacing of Marine Protected Areas in England* is available at http://naturalengland.etraderstores.com/NaturalEnglandShop/NECR037.

### Technical options for enforcing remote ocean areas

In November 2009, the Marine Conservation Biology Institute convened an international group of resource managers, law enforcement personnel, and other experts to brainstorm solutions to challenges involved in enforcing large offshore MPAs. This initiative, called the Surveillance and Enforcement of Remote Maritime Areas (SERMA) project, was profiled in the March-April 2010 *MPA News*. The project has now released a report describing a wide range of technological options for observing remote marine areas, with a focus on techniques for monitoring commercial fishing (regulated and otherwise) and vessel-based pollution. Some of the described techniques have not yet been employed for such purposes. The report *Surveillance and Enforcement of Remote Maritime Areas (SERMA): Surveillance Technical Options* is available at www.mcbi.org/publications/pub_pdfs/SERMA.pdf.

### Available: second edition of *Coral Reef Monitoring for Management*

The guide *Coral Reef Monitoring for Management*, first published in 2001, is now available in a second edition. While the basic methods featured in the first edition remain the same, the new version offers several refinements in techniques for surveying, analysis, and reporting, especially of human perceptions and activities.

The guidebook is published by the University of the Philippines Marine Science Institute in association with multiple institutional partners, and funded by the US Agency for International Development through its FISH and EcoGov2 projects. The second edition is available in English at http://oneocean.org/download. (The first edition is also available there in English, Thai, Chinese, Cambodian, and Bahasa Indonesian languages. The authors invite anyone interested in translating the second edition to contact them at pmalino@upmsi.ph.)

This "Building Resilience" feature is contributed by the Reef Resilience program of The Nature Conservancy (**www.reefresilience.org**). The program provides guidance on building resilience to climate change into MPA design.

## Building Resilience: Communicating Bleaching Incidents to Stakeholders

**By Rebecca Cerroni, Reef Resilience Project Manager, The Nature Conservancy**

When corals bleach or suffer other effects of climate change, managers need to be able to communicate these incidents to their constituents, including dive operators, fishers, tourists, and government agencies.

Whom should you contact first? Your immediate audience should be those who are dependent on the reef, such as dive operators. They will be the first to see the bleaching firsthand and will want to know what is happening. They may also want to help with first-response monitoring efforts. If you already have a close relationship with these groups, you can reach out to them directly via e-mail or phone.

After that, it is time to notify the media. Send out a press release describing the bleaching event and what the incident means for your MPA's coral reefs. Avoid gloomy messages like "The reefs are bleaching and they will die," which make the public feel helpless. You want the public to care and to take appropriate action. Bleaching means the reefs are in trouble (i.e., a bleached reef's "immune system" has been compromised), and there are things the public can do to help the reef be healthier in general — such as reducing land-based pollution or supporting sustainable levels of tourism and fishing. Ultimately, what you communicate should be tailored to your audience, to its level of engagement, and to its knowledge of climate change's causes and effects.

Here are four tips for developing a climate change/bleaching communications response:

1. Regularly monitor coral bleaching alerts at **http://coralreefwatch.noaa.gov/satellite/index.html**. This is the best resource for predictions of bleaching events.

2. If you rely on a volunteer network for monitoring and first response, have a system in place to communicate with them when a bleaching event is predicted.

3. If the best way of reaching fishermen or tourism operators is by radio, develop radio messages ahead of time.

4. Work with partners to develop a comprehensive communications plan before bleaching season. Check out templates and case studies at **www.reefresilience.org**.