

Paper Parks Re-Examined: Building a Future for “MPAs-in-Waiting”

In the field of marine protected areas, an unfortunate reality is that many sites are “paper parks”. Existing on paper — in laws and on maps — but failing to provide effective management and enforcement, these sites offer the promise of robust protection without the reality of it. Budget shortfalls, faulty planning, insufficient community support... there are many reasons why an MPA may be a paper park. Overcoming the reasons for failure and steering these sites to a functional state pose big challenges for the MPA community.

Nonetheless, paper parks also offer an opportunity. The fact they have already been designated provides at least the seed for protection, particularly in jurisdictions where there is opposition to new MPAs. Conceivably this seed can sprout if given the right attention and resources.

That may be easier said than done in this time of tight government finances and stretched management budgets. But practitioners are examining the opportunities at MPAs both large and small. In this issue of MPA News, we examine efforts to build a more effective and sustainable future for paper parks.

Paper parks affecting debate on MPA usefulness

When MPA News published its first article on paper parks in 2001 (MPA News 2:11), we described reasons many MPAs fail and how practitioners were working to strengthen individual sites. Each year since then, that issue of the newsletter has remained among the most downloaded from our website — an indication that paper parks remain a significant problem. Case in point: an assessment of management effectiveness at coral reef MPAs worldwide, conducted by the World Resources Institute for its 2011 report *Reefs at Risk Revisited*, found that 47% of the sites were ineffective in meeting their goals, as opposed to fully or partially effective (www.wri.org/publication/reefs-at-risk-revisited).

The phenomenon of paper parks has entered the public debate on usefulness of MPAs. In a newspaper opinion piece in 2010, a representative of California state wildlife wardens called for a halt to designating

new no-take marine reserves in California waters, citing a lack of funds to enforce the sites adequately. His portrayal of the new MPAs as “Marine Poaching Areas” — productive areas where poachers would be able to fish illegally without fear of arrest — was picked up by opponents of the proposed sites. (Published in the *Sacramento Bee*, the opinion piece is no longer available on the newspaper’s website.)

At least those California sites are inshore, relatively visible to coastal monitors. The farther offshore an MPA is, and the larger its area, the bigger challenge enforcement can become. A recent article in *Nature* magazine suggested that the current global trend of designating very large MPAs in remote areas would make the problem of paper parks worse (“Ocean Conservation: Uncertain Sanctuary”, <http://bit.ly/naturepaperparks>).

Developing ways to supplement at-sea enforcement

Among the newest, largest, and most remote MPAs in the world are shark sanctuaries, where fishing for sharks is banned to provide refuge from rampant global overfishing. At least six nations have designated a shark sanctuary across their EEZs in the past decade: Palau, the Maldives, Honduras, the Bahamas, Tokelau, and the Marshall Islands. Although the land area of some of these nations is very small, their marine areas can be enormous — hundreds of thousands of square kilometers in some cases.

Matt Rand is director of the Global Shark Conservation Campaign for Pew Environment Group, an NGO that has partnered with the above nations and local NGOs to develop shark sanctuary plans. He acknowledges that enforcement of the shark sanctuaries, particularly for developing nations, is difficult.

“At-sea enforcement is expensive,” says Rand. “Monitoring, control, surveillance, and enforcement of the Exclusive Economic Zones of many developing countries are insufficient to ensure that pirate fishers of sharks will be apprehended. Even when caught, bonds and fines are sometimes too low to serve as a deterrent.”

Paper park:

“A legally established protected area where experts believe current protection activities are insufficient to halt degradation.”

(Source: *Conversion of Paper Parks to Effective Management: Developing a Target*, WWF-World Bank Alliance for Forest Conservation and Sustainable Use, 1999)

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MPA News

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MPA News is published bimonthly by Marine Affairs Research and Education (MARE), a 501(c)(3) not-for-profit corporation, in association with the School of Marine & Environmental Affairs, University of Washington. Financial support is provided in part by a grant from the David and Lucile Packard Foundation.

All content has been written by the MPA News editorial staff unless otherwise attributed. The views expressed herein are those of the author(s) and should not be interpreted as representing the opinions or policies of the Packard Foundation or other funders of MPA News.

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With those challenges in mind, some in the MPA field have viewed the shark sanctuaries as paper parks: the sites lack the at-sea enforcement capacity to back up their ambitious goals. But Rand says there are ways around the at-sea enforcement dilemma, namely by strengthening enforcement elsewhere, like at port.

"Enforcement at port does not require additional infrastructure, and additional training costs for customs and port officials can be minimal," he says. "For this reason, Pew advocates for measures that prohibit the possession, trade, or sale of sharks or shark products as part of a nation's shark sanctuary regulation or legislation. With no way to legally land or export sharks or shark fins at domestic ports, the incentive to target sharks is reduced, if not completely eliminated. Boats catching sharks are forced to go farther and use more fuel to get to ports where they can offload their catch."

When the Marshall Islands first designated its shark sanctuary, for example, it still allowed fishermen to retain bycatch of sharks — caught when the fishermen targeted other species. This left a loophole that fishermen could use to sell shark fins, claiming they had not meant to catch the sharks. Pew worked with the Marshall Islands Conservation Society and the Marshall Islands Marine Resource Authority to ban all sales of sharks or shark products in the nation, closing the bycatch loophole.

In addition, Rand supports "appropriately prohibitive fines" to prevent penalties from being absorbed by offenders as a cost of doing business. And where locals are dependent on the shark trade, compensation can be useful to encourage their switch to other trades, he says. When the Maldives government designated its shark sanctuary, for example, it simultaneously bought out the operators and gear of a small-boat shark fishery that supplied export markets.

At-sea enforcement does have its occasional successes, too, which can serve to supplement the port-based actions. Rand notes that in November 2011 a US Coast Guard vessel patrolling Marshallese national waters intercepted a vessel transporting shark fins and skins. And in December 2011 a Palauan patrol boat, aided by a Greenpeace ship and helicopter, intercepted a Taiwanese vessel with sharks and fins aboard. Legal action is underway against the offending vessels.

"The development of shark sanctuaries is a bright spot for shark conservation," says Rand. "We hope to see many more countries following the lead of these small coastal nations."

Is a paper park better than no park at all?

Paper parks exist on land as they do at sea. When Yellowstone was designated in 1872 as the first US national park, there was virtually no enforcement

of its regulations against hunting, logging, and other extractive activity. Poaching was rampant. The situation was so bad that in 1886 the US Army was handed management control of the park, which it held for 30 years (until the National Park Service was established by Congress).

Today that history is often forgotten. The park's management and enforcement — long since returned to civilian control and continuously improved over time — are models of good practice. At this point, there might be a temptation to view the park's first years as wasted time, that the park would have done just as well to be designated later when management capacity was stronger. But is that correct? If the government had delayed designation for decades until management capacity was ready, and while demands on resource use in the area continued to increase, would the resulting park look the same in terms of its boundaries and regulations?

A similar scenario could be imagined for paper parks in the marine realm. Mark Spalding, who co-edited a 2010 UNEP report on global MPA coverage (*Global Ocean Protection: Present Status and Future Possibilities*; www.iucn.org/dbtw-wpd/edocs/2010-053.pdf) and co-authored the above-mentioned *Reefs at Risk Revisited* report, says paper parks can serve a very basic purpose. "Quite a few sites have become more effective over time, and this may be the key," says Spalding. "Designation can provide a framework for protection that can then be improved and revised. The ineffective MPAs then become sort of 'MPAs-in-waiting'. At least the marker is down, and that might be critical as competition for the use of ocean space increases."

Part of the *waiting* aspect of MPAs-in-waiting may be for technologies and strategies to catch up to the need. Spalding says it is hard to imagine a situation, for example, where large "mega-MPAs" will ever effectively be enforced by conventional means like patrol boats and planes. "But we can get savvy," he says. "The use of unmanned surveillance vessels or aircraft is relatively untested in MPAs, but has huge potential.* Elsewhere, including in smaller MPAs, we perhaps need to get others involved to do the policing for their own benefit: those might be tourists, artisanal fishers, or even international commercial fishers operating under license, rather than patrol vessels. Incentives could be put in place to ensure these users benefit from reporting on activities that affect their own use or enjoyment of the resources."

* Editor's note: A 2010 report on emerging enforcement technologies — based on work by the Surveillance and Enforcement of Remote Maritime Areas (SERMA) project, a partnership of resource managers, law enforcement personnel, and other experts — is at www.mcibi.org/publications/pub_pdfs/SERMA.pdf.

To be clear, Spalding is not a fan of paper parks. He cautions against interpreting his comments as a license to designate MPAs without planning, or to do so against the will of critical stakeholders — which can cause resentment and heighten the potential for non-compliance, he says. He cites as an example the UK's 544,000-km² Chagos MPA in the Indian Ocean, where displaced Chagossian islanders are still fighting for the right to return to the islands and to use the marine resources there. "In such cases, one can hope that over time and with concerted effort, genuine concerns can be taken into account and compromise achieved," says Spalding.

Funding the transformation of a paper park to functional status

The cost of managing an MPA varies from site to site due to a combination of natural and social factors, including MPA size ("Comparing the Costs of Large vs. Small MPAs...", MPA News 12:6) and number of visitors ("Box: The cost of operating an MPA", MPA News 5:5). In 2003, Kalli De Meyer, former manager of the successful Bonaire National Marine Park in the southern Caribbean, estimated that the 27-km² site cost roughly US \$10,000 per square kilometer (US \$100 per hectare) to operate each year.

Without adequate financial support to match circumstances and management needs, an MPA can be driven to paper park status. In the Bahamas in the northern Caribbean, South Berry Island MPA provides an example. The 183-km² no-take marine reserve, designated in 2009 under the jurisdiction of the Bahamas Department of Marine Resources, regularly experiences illegal fishing and physical damage to its coral reefs. The department suffers from limited resources, both financial and technical, and must ration support across its system of protected areas. As a result there is little funding available for South Berry Island MPA and no active management in place.

However, the MPA received a break in April 2011 when a cruise ship anchored nearby. The ship was hosting an international meeting of entrepreneurs, artists and innovators — the Summit at Sea (www.summitseries.com) — and attendees expressed an interest in focusing their collective energy on a particular project. An idea was embraced to raise funds to support and strengthen a needy marine protected area, including by building a sustainable management framework for it. South Berry Island MPA had the good fortune of being in the right place at the right time.

Within weeks, the MPA was the focus of a US \$500,000 online fundraising campaign — an example of "crowdfunding" that has attracted mostly small donations from many individuals online (www.crowdrise.com/summitseriesmpa). As of

mid-January 2012, the fundraising goal is already 98% reached, with a particular boost from one entrepreneur who donated \$250,000.

The \$500,000 target figure was based on a draft management plan of the MPA developed by the Bahamian government and The Nature Conservancy with public stakeholder input. Felicity Burrows, marine conservation specialist in The Nature Conservancy's Northern Caribbean office, says the collected funds will help address several immediate needs of the MPA, including a patrol boat, mooring and marker buoys, signage, and facilities. A portion of the funds will also help build a system to support the MPA's financial sustainability over time. "Effective management of MPAs is not a one-time deal — it is a long-term effort," says Burrows. "Using part of the \$500,000 to create sustainable finance mechanisms, like entrance and user fees, is important if the reserve is to remain functional." She notes a feasibility study will determine the most effective funding mechanisms for the site.

M. Sanjayan, lead scientist for The Nature Conservancy worldwide, says that focusing funds and attention on existing paper parks makes sense. "The truth is that many good ideas or efforts languish for often pretty simple reasons," says Sanjayan. "Someone has started the job but not completed it. It is much more efficient to identify these opportunities and complete them than to start from scratch. It is analogous to doing energy-efficiency retrofits on existing buildings: it might not be as sexy as constructing a new highly efficient building, but it can be a much quicker way to achieve your efficiency goals. In the case of South Berry Island MPA, the site had already gone through the time-consuming designation process, and there was also already a local constituency for conservation. The MPA just needed a little financial help getting over the hump, and an investment could bring a great rate of return in terms of conservation outcomes."

The Nature Conservancy has agreed to match the \$500,000 raised for South Berry Island MPA dollar for dollar. The match funds will be vested in the Bahamas Protected Areas Fund, an endowment now being established to provide sustainable finance for the Bahamas National Protected Area System.

A decade ago, The Nature Conservancy and partner institutions, with funds from the US Agency for International Development (USAID), conducted a program called Parks in Peril (www.parksinperil.org). The program transformed multiple nonfunctioning terrestrial parks in Latin America to functioning, sustainable conservation efforts. Says Sanjayan, "The key is to be clear about which sites are in trouble because of lack of funding and what the jams are, and to have quantifiable measures to ensure the fund is accountable to outcomes." Those quantifiable measures could

More on paper parks and management effectiveness

- What Should Be Done When MPAs Do Not Meet Their Goals? MPA News 9:6

- On Defining MPA 'Success' and Choosing an Evaluation Model: Interview with Marc Hockings. MPA News 7:10


- Paper Parks in the Philippines: Improved Information Tells a New Story. MPA News 7:6

- Problem is Shortage of Capacity, Not Revenue Sources: Proposing a New Approach to Financing Protected Areas. MPA News 5:5

- Paper Parks: Why They Happen, and What Can Be Done to Change Them. MPA News 2:11

(All back issues of MPA News are available at www.mpanews.org.)

include how effectively an area is protected, and how people's lives have been enhanced by the protection.

The Parks in Peril program came to an end when USAID's attention shifted more to sustainable development. However, says Sanjayan, a similar program for MPAs could still be a worthwhile endeavor. "If we had a comprehensive list of marine sites in need of support to transform from paper park to functioning MPA, and we could tie those efforts to quantifiable outcomes, I think a fund could be generated for those paper parks. That could have a shot." 

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On the Current State of MPA Science: An Interview with Joachim Claudet

In recent years, ecologist Joachim Claudet has been at the forefront of MPA science. His studies of European marine reserves — which found that the older and larger a marine reserve is, the greater the density of large fish inside it is — have held important implications for MPA network design and fisheries management ("Older and larger reserves have more large fish", MPA News 10:11).

Now a new book edited by Claudet, with chapters contributed by researchers from around the world, gathers the latest scientific knowledge on MPAs, including on their use in biodiversity conservation and fisheries management. Applying findings from ecology, economics, sociology, and more, the book *Marine Protected Areas: A Multidisciplinary Approach* (Cambridge University Press, 2011) walks readers through the effects of MPAs and how to measure sites' effectiveness. It also discusses the development of representative MPA networks. Claudet, a researcher at the National Center for Scientific Research in Perpignan, France, talks below about the current state of MPA science.

MPA News: In your opinion, what have been the most important recent advances in MPA research?

Joachim Claudet: The most important advances lie at four different levels, each of which is presented in the book.

First, important discoveries or confirmation of theory was made on how MPA effects are driven by different factors such as MPA age, size, or level of enforcement. The implications are strong for MPA design and management. For example, even if young and small MPAs can be effective in increasing fish population density, old and large MPAs can show even greater positive responses. Meanwhile no positive responses should be expected from MPAs with low levels of enforcement.

Second, major advances were made on the numerous indirect ecological effects of protection, which are also time-dependent. These effects can involve trophic cascades and complex predator-prey relationships.

Third, the potential socio-economic benefits of MPAs are now becoming clearer. Studies show, for example, that MPAs can lead

to jobs and/or revenue increases in activities linked to MPAs such as fishing and tourism, as well as to the maintenance of traditional activities.


Fourth, the general agreement among scientists that MPA networks can optimize conservation and fisheries benefits has led to significant advances in network design and evaluation.

MPA News: What are the most important MPA questions that still require answers?

Claudet: In my opinion, efforts are urgently needed to understand if MPAs can increase the resilience of protected ecosystems. Existing results are, for now, contradictory. Determining if healthier or more "pristine" ecosystems within MPAs can cope with higher regional or global pressures before shifting to alternate states is fundamental to mitigating regional and global change. (Along the same line, understanding how MPAs may help buffer against human-induced selection pressures and protect phenotypic and genetic diversity — to support adaptation to future environmental change — is of major importance.)

Understanding better patterns of connectivity among protected and unprotected areas of MPA networks is also needed, although recent advances have been made in this direction. This information is critical to designing effective ecological networks that can benefit multiple species at a time.

The recent emergence of large-scale pelagic MPAs also calls for new research to better understand how protection can be effective in these habitats and how regulations can be applied offshore over such large, remote areas.

Finally, MPA research publications still focus too often on a given discipline: ecology or economics or genetics or something else. MPAs are social-ecological systems. Future research needs to reflect this fact. Natural and social scientists in the MPA field need to collaborate more to make their work fully multidisciplinary. 

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Australian Government Releases Proposal for Large Coral Sea MPA; Stakeholders Respond

In late November, the Australian Government released a draft plan to designate what could be the world's largest marine protected area. Covering 989,842 km², the proposed Coral Sea Commonwealth Marine Reserve would be located in Australian waters of the Coral Sea. The MPA would extend from the eastward boundary of the Great Barrier Reef Marine Park to the edge of the Australian EEZ, where it would border the waters of Papua New Guinea, the Solomon Islands, and New Caledonia.

As proposed, the new MPA would feature four zone types ranging from fully no-take to various levels of managed use. Broadly, the eastern half of the MPA — farther from the mainland and less accessible — would be no-take. The western half of the MPA (the side adjacent to the Great Barrier Reef Marine Park) would allow recreational fishing through most of it, as well as selected commercial fishing gear types in particular areas. Some gear types — namely demersal trawling, demersal longlining, and gillnetting — would be banned across the entire MPA (*demersal* means on or near the seabed). Mining and petroleum exploration/development would also be prohibited.

The proposal is the latest step in Australia's move to apply protection to the region. In 2009, the Government under former Prime Minister Kevin Rudd designated the area as an interim conservation zone to protect its ecosystem from increasing pressures while a detailed assessment of the region was undertaken (MPA News 10:11).

The draft plan for the new MPA is available at www.environment.gov.au/coasts/mbp/coralsea/consultation/index.html. It is open for public comment until 24 February 2012. After that, and following any revisions, there will be a formal statutory declaration process with another round of public consultation.

Feedback on the draft plan

The MPA's no-take zone totals 507,487 km² and would count by itself as one of the largest no-take marine reserves in the world (the no-take Chagos MPA in the Indian Ocean is 544,000-km²). The proposed no-take zone would comprise 490,200 km² of new protection as well as two existing Commonwealth no-take reserves of approximately 17,290 km² established in 1982 — Lihou Reef National Nature Reserve and Coringa-Herald National Nature Reserve.

However, the draft plan falls short of a campaign by conservation NGOs to have the entire Australian Coral Sea designated off-limits to fishing to protect its ecosystem and make enforcement simpler. The conservation groups are asking the Government to reconsider the draft zoning. Meanwhile fishing associations have expressed concern that the proposal places unnecessary limits on their activities, which they believe are sustainable and do not threaten the ecosystem. Below, three stakeholders weigh in on the proposed MPA.

A. Trawling should be allowed in part of MPA

By Geoff Tilton, President, Queensland Seafood Industry Association (QSIA)

QSIA represents fishermen in Queensland-managed fisheries, and very few of these occur in the proposed Coral Sea Commonwealth Marine Reserve, which is in Commonwealth waters. However, of the two major commercial fishing activities that currently occur in the proposed MPA, one is in fact a Queensland-managed fishery: trawling. The trawling occurs in a small 50-km-by-20-km area that is nonetheless important to trawl operators. The trawl area extends out from state waters in the Great Barrier Reef Marine Park along a particular depth contour, then loops back to the Park. (The other major commercial fishing activity in the proposed MPA is longline fishing for albacore tuna and swordfish, a Commonwealth-managed fishery.)

It should be noted that within the adjacent Great Barrier Reef Marine Park, bottom trawling for prawns is an accepted, ecologically sustainable activity. However, in the proposed Coral Sea Commonwealth Marine Reserve, no bottom trawling would be allowed.

The proposed zoning maps that have been released for comment are not the first set of Coral Sea maps prepared by the Government [specifically, by the Department of Sustainability, Environment, Water, Population and Communities]. Before the current maps were released, an original set was shown to industry and we were asked to comment on them with the view to minimizing the impacts of the Coral Sea Commonwealth Marine Reserve on existing fishing activities. Of the MPA's total area of 1 million km²,

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the trawl industry operators asked that 1000 km² — the strip that they currently trawl — be left open to them. By allowing this trawl area, there would be no financial impact on the fishery from the new MPA.

However, the draft plan still contains a total trawl ban. We have a situation where existing trawl ground will be lost and the operational method of the trawl fleet will be severely impacted. No notice was taken by the Department from the original consultation;

it seems they just wanted to be able to say, “Trawl is excluded” in announcing the new MPA.

There was also the potential for exploration of new fisheries by commercial fishermen in the area now being closed. Some access to possible future food resources could have been left open while still allowing a huge pristine area.

B. A much higher level of protection is needed

By Imogen Zethoven, Director, Coral Sea Campaign, Pew Environment Group

Let me start by saying the draft plan does have some strengths. The total reserve area would be nearly 1 million km², and demersal longlining and trawling — which are either currently active or have recently been active in the area — would be prohibited throughout the entire MPA. In addition, two potential threats to the ecosystem, gillnetting and mining, would be prohibited.

That said, there are some real shortcomings to the draft plan:

- We were surprised at the very low level of full protection proposed for the coral reefs that give the Coral Sea its name and identity. Only 2 out of 25 reefs currently open to fishing in the Coral Sea are included in the proposed no-take zone. This would leave more than 90% of the coral reefs in the Coral Sea unprotected.
- Of the total MPA, 49% would remain open to various forms of fishing. This area (482,355 km²) is in the western and southern Coral Sea. It contains most of the species-rich coral reefs as well as two large trough systems that host spawning aggregations for black marlin, bigeye tuna, and lanternfish. The southern Coral Sea is considered a global hotspot for large apex predators, particularly yellowfin tuna, barracuda, and sharks.
- Pelagic longline fishing would be allowed to continue in almost one-quarter of the proposed reserve, which includes the southern Coral Sea. While it would be prohibited in the remaining three-quarters of the reserve (almost 730,000 km²), fishing is less intensive in that area. Globally recognized as a threat to seabirds, turtles, and sharks, pelagic longlining is not an appropriate activity in a protected area and is prohibited in the adjacent Great Barrier Reef Marine Park.
- The draft plan contains four different zones in eight spatial configurations. This is too complex for a remote offshore reserve. A single large no-take reserve would be far simpler and more cost-effective to enforce.
- We had expected some allowance for charter fishing along the Great Barrier Reef Marine Park boundary, but not the very large concessions proposed in the draft plan (catch-and-release recreational fishing would be allowed in 49%, while catch-and-take recreational fishing would be

C. Recreational fishing is not identified as threat, so why a ban in 51% of MPA?

By Judy Lynne, Executive Officer, Sunfish Queensland

I would have preferred to see recreational fishing allowed in all areas of the Coral Sea Commonwealth Marine Reserve. Recreational fishing has not been identified by the Government as posing any risk or threat to the identified values of the Coral Sea. Distance from shore and unpredictable weather already provide extreme limiting factors on the use of this area by recreational fishers. Given the high level of protection already afforded to biodiversity in the adjoining Great Barrier Reef Marine Park as well as in the two existing no-take areas inside the proposed MPA (e.g., Lihou Reef National Nature Reserve and Coringa-Herald National Nature Reserve), any additional level of protection in the Coral Sea without any identified risks or threats seems based on politics more than anything else.

Furthermore, limiting access will have little impact on the real ecosystem threats identified in other scientific reports: e.g., diminishing water quality, increasing salinity and turbidity, global warming, and coastal development. In addition, there is no mechanism in the plan to allow flexibility of the zoning scheme as climate and environmental conditions change.

There has been in-depth investigation into identifying the ecosystem values and key biodiversity indicators in the Coral Sea. What is now needed is a risk analysis matrix that can link the real ecosystem threats to the zoning plan.


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allowed in 47% of the MPA, including almost all of the coral reefs and major spawning aggregation sites). Over the 20-year period from 1989 to 2009, 99.2% of tagged and reported game fish in the region were caught in the Great Barrier Reef Marine Park and only 0.8% in the area now proposed as a Coral Sea marine reserve.

The Protect Our Coral Sea coalition — which includes the Pew Environment Group and partner organizations (www.protectourcoralsea.org.au) — is calling for the extension of the proposed no-take zone to include all the reefs, cays, and seamounts of the Coral Sea. These habitats are small, isolated from

each other, and vulnerable to frequent cyclone events, which make them less resilient than the interconnected reefs of the Great Barrier Reef ecosystem. The coalition is also seeking the extension of the no-take zone over much of the two large trough systems that host the major spawning aggregations of marlin and tunas.

The region is remote and expensive to access. No other part of Australia can offer such major conservation and heritage benefits with so few socio-economic impacts as the Coral Sea. Our goal is to secure a much higher level of protection in the final plan. 

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Notes & News

MPA enforcement conference delayed to November 2012

The Global MPA Enforcement Conference, sponsored by WildAid and originally scheduled for February 2012, has been postponed to 25-29 November 2012. It will still be held in San Francisco, California, US. The website for the meeting is <http://wildaid.org/mpaconference>. The name of the meeting has also been changed: it is now called simply the 2012 MPA Conference.

New MPAs take effect in S. California waters

A systematic network of new marine protected areas took effect on 1 January 2012 along the south coast of the US state of California, from Point Conception to the California/Mexico border. A year earlier, the California Fish and Game Commission adopted regulations to create the network of 36 new MPAs in the region. The regulations were adopted as part of the state's Marine Life Protection Act (MLPA) initiative, a region-by-region process to reexamine and redesign the state's MPA system. The south coast region is one of five state-wide study regions in the MLPA planning process.

Combined with existing state MPAs in the region, the MPA network covers roughly 15% of state waters along the south coast. For more information on the MLPA process in general or the south coast MPAs in particular, go to www.dfg.ca.gov/mlpa.

Uruguay designates MPA for green turtles

The Uruguayan government has designated a marine protected area around important foraging and nursery habitat for green turtles, as well as habitat for cetaceans and nesting seabirds. Designation of the new Cerro Verde Marine Protected Area is the

culmination of more than a decade of planning by local NGO Karumbé (www.karumbe.org) in association with multiple partners including the Conservation Leadership Programme, a coalition of large international conservation NGOs (www.conservationleadershipprogramme.org). Turtle researchers believe that although some of the area's green turtles migrate to Brazil during winter months, other stay in Cerro Verde year-round, including hibernating in underwater caves when the colder winter water arrives.

Report: Legal scenarios for MPAs in areas beyond national jurisdiction

The report of a September 2011 seminar in Boulogne-sur-Mer, France, analyzing legal scenarios for MPAs on the high seas is available at www.iddri.org/Publications/Collections/Analyses/A-legal-scenario-analysis-for-marine-protected-areas-in-areas-beyond-national-jurisdiction. The seminar convened experts on the law of the sea, ocean governance, and biodiversity protection. It was co-organized by the Institute for Sustainable Development and International Relations (IDDRI), IUCN, and the French Marine Protected Areas Agency.

Oceana proposes new MPAs for Baltic and northeast Atlantic

Oceana, an international NGO, has released publications calling for the designation of nine new MPAs in the Baltic Sea and 28 new MPAs in the northeast Atlantic. The Baltic report, based on the findings of a two-month research expedition conducted by Oceana in early 2011, identifies important marine habitats and ecosystems that warrant protection, totaling 3500 km². The report is available at <http://baltic.oceana.org/en/media-reports/reports/baltic-conservation-proposals-for-ecologically-important-areas-in-the-baltic-s>.

New forum on marine debris management

Marine Affairs Research and Education (MARE), publisher of MPA News and Marine Ecosystems and Management, has launched a new online forum on marine debris management, research, and prevention. The MarineDebris.Info forum offers a listserv for online discussion and a regular webinar series on marine debris topics of interest. The first webinar in the series was held 12 December 2011 on preparations for the arrival of Japanese tsunami debris at Papahānaumokuākea Marine National Monument in the Northwestern Hawaiian Islands. For more information, including a full recording of the webinar, go to www.marinedebris.info.

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The northeast Atlantic proposal — aimed at signatories to the OSPAR Convention, which oversees the region's marine resources — is based on findings from expeditions and a workshop of scientists convened by Oceana. The 28 proposed MPAs are in the Atlantic waters of Spain and Portugal as well as the Kattegat, a sea area bounded by Denmark and Sweden. The proposal is at <http://eu.oceana.org/en/eu/media-reports/press-releases/oceana-proposes-28-atlantic-marine-habitats-for-protection-under-ospar>.

New report on state of Australia's environment offers analysis of MPAs

An independent committee has delivered a report to the Australian government on the state of the Commonwealth's environment, including pressures on ecosystem health, trends, and effectiveness of management. The report addresses the subject of MPAs in the context of management effectiveness in the marine environment. In Australia, State of the Environment (SOE) reporting occurs at the national and state/territory level. At the national level, an SOE report has been produced every five years dating back to 1996. The 2011 report — both the full 1000-page version and a 50-page brief — is available at www.environment.gov.au/soe.

Marine mammal protected area conference presents summary, recommendations

Organizers of the Second International Conference on Marine Mammal Protected Areas (ICMMPA 2), held on Martinique in November 2011, have released the final executive summary of the meeting as well as recommendations that emerged from the conference's workshops. These materials are available from Erich Hoyt, conference chair, at erich.hoyt@mac.com and will be posted soon on the ICMMPA 2 website at <http://second.icmmpa.org>.

Among the recommendations, the conference workshop on scientific information and marine spatial planning called for:

- Developing advice on using marine mammal science to inform decision-making, and ensuring that relevant information about marine mammal important areas is incorporated in the Convention on Biological Diversity process of identifying ecologically or biologically significant areas;
- Forming a task force to develop guidelines for best practical ways to engage with the shipping industry, the International Maritime Organization, and other sectors;
- Developing a best practices guide for marine mammal spatial planning; and
- Developing an action plan to identify and address critical data gaps.

Relatedly, a new report from the Whale and Dolphin Conservation Society provides guidance on mapping spatial patterns in cetacean population density. Aimed at informing conservation planning and MPA network design, the report *Mapping Large-scale Spatial Patterns in Cetacean Density* is at www.cetaceanhabitat.org/pdf_bin/spatial_patterns_report.pdf.

From the database: The northernmost MPAs

The following sites are drawn from the World Database on Protected Areas (WDPA), compiled by the UNEP World Conservation Monitoring Centre. For reference, the North Pole is 90° N, the Equator is 0°, and each full degree of latitude equals 111 km. The longitudinal projection used was WGS84. Information on each of the MPAs is available at www.protectedplanet.net. The number in parentheses for each site is its WDPA site identification number.

- **Northeast Greenland National Park, Greenland** (WDPA ID: 650)
Northernmost point: 83.730° N
Total area: 972,000 km² / Marine area: 110,600 km²
- **Quttinirpaaq National Park, Canada** (WDPA ID: 13396)
Northernmost point: 83.151° N
Total area: 37,775 km² / Marine area: 2342 km²
- **Zemlya Frantsa Iosifa / Franz Josef Land Zakaznik, Russia** (WDPA ID: 61502)
Northernmost point: 82.194° N
Total area: 42,000 km² / Marine area: 26,000 km²
- **Nordost-Svalbard Nature Reserve, Norway** (WDPA ID: 1334)
Northernmost point: 81.028° N
Total area: 55,354 km² / Marine area: 36,891 km²
- **Nordvest Spitsbergen National Park, Norway** (WDPA ID: 821)
Northernmost point: 80.246° N
Total area: 9870 km² / Marine area: 6231 km²

Prisoners caught fishing in no-take reserve

In January 2012, six inmates on temporary release from prison in New Zealand were apprehended for fishing in the country's Te Angiangi Marine Reserve, a no-take area. The offenders were engaged in a rehabilitation program for inmates near the end of their sentence, and were accompanied by two program supervisors who were also arrested. The rehabilitation program focuses on learning positive skills for life after prison, such as diving for food.

The New Zealand Department of Conservation (DOC) said its investigation found one of the supervisors had mistakenly directed the group into the reserve. The prisoners returned the seafood they had collected and will be involved in future DOC work at the site. The department is not pressing charges against the inmates, who could have faced up to three months in prison or NZ \$10,000 (US \$8060) in fines. A DOC press release is at www.doc.govt.nz/about-doc/news/media-releases/doc-accepts-marine-reserve-incident-genuine-mistake.