

The New IUCN Definition for “Protected Area”: Examining Its Effects on MPA Practice

At the World Conservation Congress last month, IUCN presented its new official definition for the term “protected area” (*MPA News* 10:4):

“A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.”

Refined over several years of negotiations, the definition is intended to apply to all types of protected areas: terrestrial, freshwater, coastal, and marine. Explanations of each of the definition’s component terms and phrases are provided in IUCN’s report *Guidelines for Applying Protected Area Management Categories*. The report — available at www.iucn.org/dbtw-wpd/edocs/PAPS-016.pdf — also explains IUCN’s six newly revised categories for protected areas, ranging from “Strict Nature Reserve” to “Protected Area with Sustainable Use of Natural Resources”.

Of interest to MPA practitioners is that IUCN expects the new protected area definition to supersede its previous definition for “marine protected area”, used since 1999 (“Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment). This month, *MPA News* asks two experts who helped draft the guidelines what the new definition and, more broadly, the revised management categories could mean for MPA practitioners:

- **Nigel Dudley**, editor of the guidelines report and managing partner of Equilibrium Research in the UK; and
- **Dan Laffoley**, marine vice chair of the World Commission on Protected Areas (WCPA).

MPA News: Is the previous IUCN definition for “marine protected area” now defunct?

Dudley: There was a clear recommendation from WCPA marine members that MPAs should be more closely aligned with terrestrial and freshwater protected

areas and that a definition should reflect the full range of habitats. It is worth noting that this new definition specifically includes the words “A clearly defined geographic space...” instead of “land and/or sea”, as in an earlier [1994] definition, to embrace freshwater systems and brackish water systems.

Laffoley: It would be perverse to say that marine sites should operate under a different definition. Common sense dictates that for sites to be considered “marine” protected areas, we are talking about intertidal or subtidal areas that fit the protected area definition.

MPA News: In what ways do you expect the revised guidelines for protected area management to impact the management of MPAs?

Laffoley: The new guidelines have been written to provide more clarity on what can be included in each management category. This leaves the manager to decide where sites rest within the category system. This is of paramount importance because an objective assessment of the categories will better guide the development and implementation of management plans.

Dudley: The most immediate impact will be that some large MPAs, where different zones are permanent and defined in law, will be able to assign different categories to these zones. This was not possible under the previous guidelines.

Laffoley: I also expect that the guidance will help practitioners avoid problem areas so as to make management more achievable and measurable. For example, IUCN has taken the view in the guidelines that vertical zoning of MPAs (such as in the water column above seamounts) should be avoided due to the difficulties of enforcing such zones.

MPA News: The 86-page report devotes less than four pages to the subject of marine protected areas. Is this sufficient to address the particular challenges of categorizing MPAs?

Laffoley: A greater length of text is not necessarily a demonstration of better quality! The marine section is there to augment the overall principles highlighted in the beginning of the report, so it is misleading to focus

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on just the four pages of specific marine text. IUCN, and particularly WCPA – Marine, will be looking for feedback to see where further improvements in guidance are needed. There is already a commitment to having case studies on the WCPA website to provide further explanation, which will include MPAs.

Dudley: We will see whether or not the guidance in the current publication is sufficient for MPA practitioners. There is no reason why a special publication on interpreting the categories for MPAs should not be

produced. My own opinion, however, is that MPAs are less different from terrestrial or freshwater protected areas than is sometimes claimed. Freshwater sites, for example, also have issues relating to temporary exclusions, vertical zoning, and categorization of zones. Hopefully the new guidelines have addressed some of these issues in general terms that will be applicable to all protected areas. 🌊

Letter to the Editor

Uninhabited islands should be focus of conservation efforts

Dear *MPA News*,

We write in response to your September 2008 issue, in which you asked what MPA planning and management will be like in 10 years.

The degradation of marine ecosystems, especially coastal systems such as coral reefs and mangroves, has been accelerating over the past half century. This is driven largely by human demographic pressures and consequent impacts on habitats and resources. In 10 or 20 years' time, we will have reached a point where effective conservation will demand that urgent, difficult decisions are made.

Complete and self-contained reserves with no human pressures will be one solution via a network of protected, scattered islands in the Indo-Pacific. There are hundreds of uninhabited islands, and increasing urbanization is creating more of these as populations leave small remote islands with limited economic prospects in search of a new way of life in large continental and island cities. These uninhabited islands will become refuges for wildlife and stepping stones that reach from the east coast of Africa across to the Americas, encompassing the whole Indo-Pacific region.

Even these uninhabited islands will be subject to climate change stresses, but they will have the highest resilience potential because there are virtually no anthropogenic stresses. Therefore governments, governmental organizations, and NGOs must consider now what possibilities exist to declare strict island wildlife refuges without any inhabitants and human activities. Governments then should act to declare those within their jurisdiction.

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Notes & News

Report: Gender and equity in West African protected areas

A new report from IUCN and the Fondation Internationale du Banc d'Arguin (FIBA) examines the role of gender equity in protected area management in West Africa. Featuring several case studies of marine and coastal protected areas, the report discusses the relationship between conservation and social equality between the sexes. It also offers several recommendations for applying an equity-based approach to protected area management in West Africa and elsewhere. *Gender and Equity in the Protected Areas of West Africa* is available online at www.lafiba.org/var/plain/storage/original/application/0d396aabb9ce4b97f43a306803c0add.pdf.

UK report: Gauging public opinion on MPAs and undersea landscapes

A new report commissioned by Natural England, the UK government's statutory body for nature conservation in England, analyzes public attitudes toward the undersea landscape. It is intended to aid NGOs and other institutions engaged in building public support for MPAs in the UK. The report *Qualitative and Quantitative Research into Public Engagement with the Undersea Landscape in England* is available online at <http://naturalengland.communisis.com/naturalenglandshop/docs/NERR019.pdf>

The study differs from other polls on marine issues, state the authors. "The existing polls and studies used by marine conservationists to support proposals for MPAs...do not generally relate to 'place' or landscape even though MPAs are place-based measures," they write. "Such surveys often show strong concerns about 'marine issues' or the 'marine environment' but in the form of pollution, litter, and overfishing, not the marine landscape. As such they are of limited use in predicting robust support for, or constructing communications about, MPAs."

Certification Program Now Available for MPA Managers

Professionals working at a range of bureaucratic levels in MPAs in the Western Indian Ocean now may get certified as a way to demonstrate their skills and experience. Developers of the Western Indian Ocean Certification Programme for Marine Protected Area Professionals, or WIO-COMPAS, anticipate eventually adapting and applying it to other regions worldwide.

The program was developed by the Western Indian Ocean Marine Science Association (WIOMSA) in partnership with the Coastal Resources Center (CRC) at the University of Rhode Island in the U.S. The first certification event, consisting of eight days of assessment and professional development, occurred in August 2008 and involved 11 professionals from Kenya, Madagascar, Mozambique, South Africa, and Tanzania.

WIOMSA already provides several tools for MPA managers, including a manual and training course (*MPA News* 5:4 and 2:2, respectively). Julius Francis, WIOMSA executive secretary, says the certification program is distinct from these other instruments. "This is a certification program that assesses proven performance on the job," he says. "While there are professional development skills provided, WIO-COMPAS is not a training course. Candidates come to prove their skills and establish a network with colleagues."

Those who are accepted into the program already have a certain level of education and experience. At the certification event, candidates share lessons learned with colleagues, refine a case study of a challenge they currently face as a professional in their MPA, and engage in dialogue with regional and international experts in MPA policy and practice.

Individuals who complete the program and receive a passing grade are designated as an "MPA PRO". The designation indicates the individual has proven he or she meets standards of education, knowledge, skills, experience, and on-the-job performance in six competency areas:

- Policy, legal and compliance frameworks;
- Approaches to MPA establishment and management arrangements;
- Communication and stakeholder engagement;
- Financing MPAs;
- MPA management operations; and
- Biophysical and social environment.

"WIO-COMPAS focuses on the core skills that are needed by the majority of MPA professionals," says Glenn Ricci of CRC. "The program is not meant to replace training; it is a complement to training efforts.

MPA professionals need to continue to be trained so as to be able to perform on the job." To maintain certification, individuals must renew their certification every five years and undertake continuing education on new practices and tools in MPA management.

Three levels of certification

The program offers advancement and recognition at three levels:

- Level 1 — For professionals with daily duties similar to those of an MPA ranger or officer
- Level 2 — For professionals with supervisory responsibilities similar to an MPA manager
- Level 3 — For professionals in higher-level management, strategy, and policy development

WIO-COMPAS was designed from the start to be replicated in other regions worldwide, says Ricci. "The program has been developed such that its format, content, and, most importantly, standards and indicators for assessing an individual's performance against core competencies are valid for any MPA professional around the world," he says. "The WIO-COMPAS team wants to work with others who are interested in adapting the program for their country or region."

Would the program's planners eventually like to see certification become a requirement for employment in the MPA management field? "WIO-COMPAS and the larger model were built as a voluntary certification to support the needs of MPA professionals," says Ricci. "At this early phase it is not the goal of our certification program to be a requirement for employment." More information on WIO-COMPAS, including its program handbook with information on fees, is available at www.wio-compas.org. 

For more information

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Benefits of certification

According to organizers of the WIO-COMPAS program, an MPA professional will receive several benefits from certification, including:

- International confirmation of the manager's skills, which can assist when applying for future jobs or for promotion purposes;
- Active membership in the WIO-COMPAS alumni network, which will include a discussion forum and exchange of information with fellow certified professionals, assessors, and other experts; and
- Notices for future training courses to build competencies.

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No-Take Marine Reserves as Fishery Management Tools: An Interview with Bob Steneck

In a report published by the United Nations University this past July, a team of researchers concluded that most coastal management strategies in use worldwide were largely ineffective at stopping environmental degradation, and called for changes. The report *Stemming Decline of the Coastal Ocean: Rethinking Environmental Management* criticized most coastal and marine resource management efforts as fragmented and insufficiently based on science. MPAs received particular criticism. "Marine protected areas are becoming the principal tool used for conservation management in the coastal ocean but they are poorly used," concluded the authors. They said that although no-take marine reserves have been touted as a fishery management tool, too little research has been done to establish their usefulness for that purpose. The report is available at www.inweh.unu.edu/inweh/coastal/Coastal-Policy-Brief.pdf.

Bob Steneck of the University of Maine in the U.S. was on the report's eight-person team, and co-wrote the MPA section with Peter Sale. Steneck talks with *MPA News* about the report's MPA conclusions:

MPA News: Your report calls for significant investment in targeted research on the use of no-take reserves as fishery management tools. How optimistic are you that such investment will occur?

Steneck: I think there have been significant investments in research on no-take reserves, though not necessarily on their use in fisheries management. Some of that was targeted research and some of it was opportunistic. My sense is that most demonstrable effects have been confined to reserves and areas immediately adjacent to them (i.e., adult spillover effects). Without larger landscape effects where significant population increases of fished species are clearly evident over the distributional range of those species, it will be hard to convince funding agencies this is where they should invest their money for fisheries management. So, without such proof of concept, it is hard for me to be optimistic we will see a significant investment of new money in this area.

MPA News: The report's assertion that "the great majority [of MPAs] are 'paper parks'" — with little to no enforcement — is a strong statement.

Steneck: Many studies have concluded that most MPAs are paper parks. The problem is not the biology or

ecology. We know that many target species become more abundant and bigger in protected areas. Rather, the problem is lack of effective incentives. Stakeholders see little long-term gain for them not to fish. Also, places that have fallen into a "poverty trap" (in which there are no other economic opportunities) cannot succeed because not fishing is not an option for them. Without getting community-based support, MPAs will fail. If anyone can show a region-wide improvement in fish that are locally valued, a conservation ethic could grow. Personally, I doubt such MPA-induced region-wide improvements are possible.

MPA News: Can no-take reserves still play an important role in ecosystem-based management through their role in biodiversity conservation, even if their usefulness in fishery management is not well-established?

Steneck: Yes. Evidence is strong for this. But again, the political will to scale up in the face of people who depend on the marine ecosystem for food and economic survival is lacking. A stronger approach is to develop a toolkit that includes MPAs along with quotas (catch shares), spatially-bound exclusive fishing rights, etc. Such toolkits can work only before a region has fallen into a poverty trap. So in the U.S. and other developed countries, toolkits like this should be developed. In all cases, however, local stakeholders should be involved every step of the way. They should be asked if there is a problem related to fisheries (most will say there is) and then they should be asked what solutions make sense to them. There are many examples of local solutions working wonderfully based on local cultures and traditions. For example, Palau values ecologically important parrotfish for food and tradition, so they developed a brilliant solution to ban the export of reef fish. The country's population is small relative to the size of the coral reef ecosystems, so their tradition of catching and eating parrotfish can go on without threatening the health of the reef. This works: their reefs are highly resilient and the local Palauans have a fisheries management tool they believe in and support. 

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MPA Perspective An Australian View on MPA Report Cards

Editor's note

By Trevor Ward, Graham Edgar, and Hugh Possingham

With the recent international impetus to increase the extent of MPAs in the world's oceans, including the 2012 target of the Convention on Biological Diversity, a number of systems have been developed to monitor and evaluate progress toward global and national MPA targets. The latest example of these is the report card issued by the Living Oceans Society (LOS), which compares progress in Canada, the U.S., and Australia in implementing MPAs in their federal waters (www.livingoceans.org/programs/mpa/report_card). It was mentioned in the October 2008 *MPA News*.

The LOS report card gives Australia an "A" grade for its perceived excellent MPA achievements. We disagree with the assessment on two main grounds. First, the criteria used to underpin the gradings are inadequate. Second, the LOS report card fails to recognize that a considerable set of Australia's biodiversity falls within state jurisdiction. Irrespective of their jurisdiction, many Australian MPAs offer very limited protection for biodiversity (they still allow most forms of fishing, for example). We are not able to comment here on the appropriateness of the gradings for Canada or the U.S.

The LOS assessment is based on four criteria: *mathematics* (area of declared MPAs in relation to the area of ocean), *economics* (funding for implementation), *law* (laws, policies and regulations in place), and *geography* (the proportion of each major ocean region protected within MPAs).

The *mathematics* criterion assessing areal extent as a proportion of an ocean region is not appropriate as a stand-alone criterion for MPAs. It does not include the representativeness of included habitats/ecosystems, nor the level of protection (zoning) of the areas that are included. Australia has declared some large areas of marine parks. But in the most recent MPA design process (the South East Region), mainly non-representative areas of deep water have been declared as no-take zones. Almost none (<0.5%) of the high-biodiversity continental shelf areas of the SE Region were included in the MPA system at high levels of protection (www.environment.gov.au/coasts/mpa/southeast/pubs/southeast-map.pdf). The zoning fails to meet basic regional MPA design principles of extent, representation, and protection. Indeed, consider the IUCN's new definition of protected areas [see page 1 of this issue], where any use of natural resources in a protected area must be sustainable and applied as a means to achieve nature conservation. In that light, it is now debatable whether the majority (130,000 km² — 57% of the area) of the SE Region MPAs merit classification as marine protected areas, or if they should contribute to Australia's global MPA target.

The LOS assessment of Australia's MPA performance is also flawed because it fails to consider the performance of the States in establishing effective MPAs. The inshore waters controlled by the States (the "coastal waters"), comprising about 4.6% of Australia's marine jurisdiction, is where much of Australia's highly-valued biodiversity resides. But this biodiversity is very poorly represented in zones of high protection in Australian MPAs.

We consider that progress in the design and declaration of effective MPAs throughout the 14 million km² of Australia's claimed marine jurisdiction is limited. This is despite the excellent achievements in two of Australia's coral reef icons (the Great Barrier Reef and Ningaloo Reef) and the major reserves at Macquarie Island and at Heard and McDonald Islands (sub-Antarctic region). At a global scale it is depressing that Australia's mediocre progress in MPA design and declaration is held by LOS and its partners to be aspirational.

Despite the poor performance in the SE Region, we are hopeful that the new government will adopt systematic conservation planning for the ongoing declaration of marine reserves in federal waters. However, this has yet to be demonstrated and, for now, we are reluctant to give Australia a pass grade on any MPA scorecard until we can see if the current initiatives deliver highly protected MPAs that represent the full variety of marine life. Only then could Australia's efforts in MPA design be considered to represent a standard that other nations should emulate. 

Trevor Ward is an adjunct senior research fellow at the University of Western Australia. Graham Edgar is an associate professor at the University of Tasmania. Hugh Possingham is professor of Mathematics and professor of Ecology at the University of Queensland.

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Response from the Living Oceans Society

Editor's note: Kate Willis Ladell and Jennifer Lash of the Living Oceans Society provide the following response to Ward, Edgar, and Possingham (above):

"The purpose of the MPA Report Card was to grade Canada on its performance in four basic subjects with respect to MPA establishment that could be compared with the performance of other countries. In many instances this resulted in trying to compare apples and oranges, and coarse metrics were all that could be compared. The result of the comparative nature of the report card meant that grades were awarded on a curve, and due to Canada's poor performance in almost all subjects, Australia's performance did indeed appear to be stellar in comparison. Trevor Ward and his colleagues therefore offer a fair critique (and we agree that it is depressing) that just because Canada is underperforming does not necessarily mean that Australia is outperforming. The takeaway message from this exercise should be that we are all trying to do what is best for the planet by establishing representative networks of MPAs that offer adequate protection for biodiversity. Most countries — Canada and Australia included — need to do more."

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Notes & News

Zoning plan and license-buyback program announced for Moreton Bay (Australia)

The government of the Australian state of Queensland announced its rezoning plan for Moreton Bay Marine Park in October, featuring an expansion of no-take zones in the state-run MPA. Taking effect on 1 March 2009, the plan increases the no-take percentage of the 3400-km² park from less than 1% to 16% of its total area. "With this plan we protect more of Moreton Bay, we protect marine habitat and therefore marine species, and we protect the legitimate rights of recreational and commercial fishers," said Queensland Premier Anna Bligh.

The plan includes an AU \$15.1-million (US \$10-million) program to buy back licenses from local commercial fishers who voluntarily leave the industry, easing the stress on Moreton Bay's fish population. Moreton Bay is home to 750 species of

fish, 120 species of coral, several cetacean species, and reportedly the world's largest population of dugong next to a capital city (Brisbane). For more information, go to www.epa.qld.gov.au/parks_and_forests/marine_parks/moreton_bay_marine_park_zoning_plan_review.

Argentina bans fishing on Burdwood Bank

In September 2008, the government of Argentina banned commercial fishing on Banco Burdwood (Burdwood Bank), an 1800-km² undersea plateau that lies 220 km off the southern Argentine coast. The area is rich in hard and soft coral species and is an important spawning ground for commercially valuable fish species, including southern blue whiting and Fuegian sardine. It is also a feeding ground for sea lions, penguins, albatross and other top predators. Burdwood Bank has been identified by the Wildlife Conservation Society (WCS) as a critical wildlife area under its Sea and Sky initiative, which seeks to promote precautionary management of the Patagonian Shelf Large Marine Ecosystem. A WCS press release on the Burdwood Bank designation is at www.wcs.org/353624/46954812.

Malagasy conservationist receives award for work with no-take areas

Roger Samba, a community leader and conservationist in Madagascar, has received a US \$200,000 prize from conservation organization WWF in recognition of his work to establish community-managed fishing closures in his country. Samba organized what is believed to be the world's first no-take zone to protect octopus, a species of economic importance to his local community. Samba's work became the model for more than 30 seasonal and year-round closures in the region, and also inspired the development of alternative livelihood and environmental education initiatives. The prize money will go to fund scholarships for undergraduate and postgraduate study in conservation and environmental science in Madagascar. For more information, go to www.livewiththesea.org/in-the-news/getty-award.htm.

South Africa designates estuarine MPA

In October, the South African government designated the nation's 20th MPA, the Stilbaai Marine Protected Area. The site includes the entire 15-km-long Goukou estuary and marks the first time an estuary has been purposefully included in an MPA in the Western Cape of South Africa. Most of the MPA, including 75% of the estuary and 20 km² of adjacent ocean, is closed to fishing and is intended to provide shelter for overexploited fish species like kob, which use both environments. Fishing will be allowed in the remainder of the MPA.

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MPA Tip

On resolving management conflicts with stakeholders

"MPA Tip" is a recurring feature that provides advice on MPA planning and management gathered from practitioners and publications. The following tip was adapted by *MPA News* from *Managing Marine Protected Areas: A Toolkit for the Western Indian Ocean*, published by the Western Indian Ocean Marine Science Association (WIOMSA). Consisting of a series of themed briefs, the toolkit offers guidance on a diverse array of MPA management topics and is available online at www.wiomsa.org/mpatoolkit/Home.htm.

Tip: A variety of conflicts may arise in relation to an MPA, most often connected to resource allocation. These conflicts may be between management and stakeholders, or among stakeholder groups. The following actions can help managers to resolve conflicts:

- Attempt to find something that can be agreed upon. However small, this area of agreement can establish a tone of cooperation and problem-solving to tackle other issues.
- Admit mistakes, when appropriate, and be prepared to accept different opinions. A manager who admits that a particular policy has not worked as intended can gain the support of the affected stakeholder groups and can help to gain trust and encourage positive future interaction.
- Avoid personal attacks and assigning blame. For example, a manager should not criticize the views of a fisher who is opposed to a new area closure. Instead the manager should explain why the closure is needed, and ask the fisher to provide ideas on how to minimize negative impacts.
- Generate several potential answers to a problem. This helps to avoid or break deadlocks. If SCUBA-diver impact in a sensitive coral area is causing conflict, for example, rather than banning divers altogether it may be possible to introduce several options such as having temporary closures, alternating days for different dive boats, and increasing diver education and monitoring of divers. 