ReefBase Newsletter – August 2008



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Announcements

1. August's theme: Marine Protected Area (MPA)



Rock Islands, Palau. Many of its marine lakes provide home and safety for several kinds of stingless jellyfish found only in Palau. (Photographed by David Burdick)

More than one quarter of all known marine species live on coral reefs (McAllister, 1988). More than €30 billion in net benefits produced in goods and economies (tourism, fisheries and coastal protection) are generated from coral reefs each year (Cesar et al., 2003). Yet more and more coral reefs today are in serious decline; where an estimated 30% are already severely damaged, and close to 60% may be lost by 2030 (Wilkinson, 2002). For all of these reasons and more, marine protected areas (MPAs) are widely regarded as one of the key solution in protecting coral reef ecosystems and associated fisheries from various anthropogenic and natural threats.

MPAs, in their diverse forms and scales are designed for various reasons to manage the local sustainable usage of the marine natural resources and also for conservation and cultural values. However, there is an increasing need to assess MPA-related effects and its ability to achieve the management objectives as initially proposed. A study highlighted that out of 300 designated and 600 proposed marine protected areas listed in the UNEP/IUCN coral reef inventory (1998), only a handful are being managed with the support of the local people who depend on the resources. The rest that did not made it are regarded as 'legal decrees' or 'paper parks', one that exists only in legislations but have no effective enforcement or management in place (Russ and Alcala, 1999). One of the reasons is because the integration of stakeholders and multi-sectoralism can be very distinct in their relative emphasis on rational planning and resource allocation, which is why conflict mediation is one of the pivotal issues to be duly emphasized in every MPA designs (Christie et al, 2005).

At the same time, conservationists, coastal managers and planners who recognized the broad applicability of marine protected areas (MPAs), often implement it without a firm understanding of conservation biology in terms of its factual foundation and long-term implications underlying the marine protection (Agardy, 2003). Both ecological and socio-economic factors of marine protection are often disregarded and the rush to implement MPAs has set the stage for paradoxical differences of opinions in the marine conservation community (Pomeroy, 2005). Already aware of this issue is a team of government officials, academics and NGO which have crafted a regional action plan (RAP) to guide the establishment of a network of MPAs by 2012 (Laffoley, 2006). This collaborative effort was formed with the objective to ensure better application of the best science, technical and policy advice on MPAs, MPA networks, and the global system. It is always of paramount importance that regions implementing MPAs for specific reasons should also tailor management efforts to their specific circumstances in order to achieve and increase the probability of enhancing the sustainability of resource use.

Featured in this issue are some of the recommended readings relating to MPAs (Literature Database) and also an introduction to the Marine Protected Areas GIS Maps available on the ReefBase website.

2. ReefBase User Survey

We are reviewing the ReefBase strategy for data and information content as well as its services. Expanding and maintaining ReefBase as a global repository for coral reef related data and information requires a significant investment of resources. It is therefore important to understand the needs of the scientific, management and development communities before deciding on new/additional contents.

For this reason, we would like to request a few minutes of your time to answer a few questions on your data/information needs and experience with ReefBase. Your input and opinions will help us fine-tune, enhance and expand the ReefBase resources, resulting in improved functionality and the contents of the ReefBase website.

Please click here to access the survey. http://www.reefbase.org/contribute/questionnaire2008.aspx

ReefBase Publication Database (Recommended readings on MPA)

1. Marine conservation and coastal communities: Who carries the costs? A study of Marine Protected Areas and their impact on traditional small-scale fishing communities in South Africa

As the conservation of marine resources becomes a growing global priority, the concept of marine protected areas (MPAs) is being widely propagated. Since most MPAs are located in coastal areas of great biodiversity, their development has direct relevance and concern to the livelihoods, culture and survival of small-scale and traditional fishing and coastal communities.

Sunde, J. and M. Isaacs. 2008. Marine conservation and coastal communities: Who carries the costs? A study of Marine Protected Areas and their impact on traditional small-scale fishing communities in South Africa. SAMUDRA Monograph. International Collective in Support of Fishworkers, India. 68pp.

http://www.reefbase.org/resource_center/publication/main.aspx?refid=26532

2. Report on the Status of Marine Protected Areas in Coral Reef Ecosystems of the United States Volume 1

This report directly addresses that objective by providing an inventory and assessment of existing MPAs that have been established and are managed by the governments of the seven coral reef states and territories. It illustrates the goals and objectives of these areas; describes current efforts to manage them; recognizes common challenges to successful management; and, identifies actions that can increase the effectiveness of MPA initiatives.

Wusinich-Mendez, D. and C. Trappe (eds.). 2007. Report on the Status of Marine Protected Areas in Coral Reef Ecosystems of the United States Volume 1: Marine Protected Areas Managed by U.S. States, Territories, and Commonwealths: 2007. NOAA Technical Memorandum CRCP 2. NOAA Coral Reef Conservation Program. Silver Spring, MD. 129 pp. + Appendices. http://www.reefbase.org/resource_center/publication/main.aspx?refid=26593

3. Carrying capacity and marine protected areas

What is being measured in carrying capacity studies is generally confined to the direct physical impacts on the environment. However, the indirect effects of visitation such as increased sedimentation levels from coastal zone construction or increased nutrients from the discharge of untreated or partially treated sewerage waste, may be much more significant sources of stress to the environment.

Glass, A. and K. De Meyer. 2002. Carrying capacity and marine protected areas. Science Fact Sheet. The Coral Reef Alliance (CORAL).

http://www.reefbase.org/resource_center/publication/main.aspx?refid=14919

4. Coral Reefs and the Global Network of Marine Protected Areas

Each year over the past 10 years, about 40 new MPAs have been created worldwide that include coral reefs. Unfortunately, the establishment of MPAs is rarely followed by good management and enforcement, which means that the numbers of MPAs and their coverage can be misleading indicators of effective conservation.

Mora, C., S. Andrefouet, M. J. Costello, C. Kranenburg, A. Rollo, J. Veron, K. J. Gaston and R. A. Myers. 2006. 4. Coral Reefs and the Global Network of Marine Protected Areas. Science Vol 312: 1750-1751 http://www.reefbase.org/resource_center/publication/main.aspx?refid=25586

5. Marine Protected Areas - providing a future for fish and people

The world's oceans are under more pressure than ever before. From France to Japan, from Senegal to Australia and Chile, fish stocks are overfished and important habitats are being lost or degraded at an unprecedented rate. Sixty per cent of coral reefs are expected to be lost by 2030 if present rates of decline continue. The increasing number of people living on the coasts and the rapid rise in consumer demand for fish threaten marine biodiversity across the oceans.

Global Marine Programme, WWF International. 2005. Marine Protected Areas - providing a future for fish and people. Global Marine Programme, WWF International Gland, Switzerland. 20p. http://www.reefbase.org/resource_center/publication/main.aspx?refid=25038

Online GIS

1. July 2008 NOAA Coral Reef Watch's Satellite Monitoring Products



This map shows the global observations of coral bleaching occurrences combined with NOAA Coral Reef Watch's satellite monitoring products including Sea Surface Temperature, Sea Surface Temperature Anomaly, Bleaching HotSpot and Degree Heating Weeks. These datasets are added into ReefBase Online GIS each month. To view the latest July 2008 maps, click here.

http://reefgis.reefbase.org/redirect.aspx?urlid=2501

2. Tips to ReefGIS – Marine Protected Area Maps



The Marine Protected Area (MPA) Map in ReefGIS is a comprehensive and interactive map that displays the locations of all the existing MPA around the world. The information available on the map originates from the Protected Areas Database compiled by UNEP-WCMC. For application in ReefBase, we have only included those protected areas which (a) are located in a "ReefBase"country (i.e. have coral reefs) (b) are located between 35 N and 35 S (c) include coral reef environments. All protected areas are represented by a symbol indicating the approximate central point. However, for a number of

protected areas, polygons are being displayed as well, indicating the extent of those protected areas.

Each point of MPA is categorized according to the IUCN category that reflects the management objectives of the MPA and the query data are linked to the MPA Global Database. This page will provide more details of the MPA relating to its designation, spatial and also the regulation information. The query window for each MPA point also provides details on the coral reef ecology and other related ecosystems that are found in that area.

Users can also select the export data function to retrieve the data for the selected layers and filters in different downloadable formats (Excel spreadsheet, Microsoft Word, Comma Separated Values, Tab Delimited XML and Graph).

http://reefgis.reefbase.org/redirect.aspx?urlid=2502

ReefBase::A Global Information System For Coral Reefs Website: http://www.reefbase.org Email: reefbase@cgiar.org