ReefBase Newsletter – April 2009



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Announcements

1. Free training opportunities in using Google Earth at the World Ocean Conference and the International Marine Conservation Congress



Information on Marine Protected Areas (MPA) is now made available globally in the Oceans layer of Google Earth, thanks to the partnership between IUCN and Google in making this possible. In line with this, two important workshops will be organized in two of the pinnacle ocean related conferences this year; the World Ocean Conference in Manado Indonesia (12-14 May) and the International Marine Conservation Congress, Washington DC, USA (21-24 May).

These workshops aim to teach the users to create and edit data in Google Earth using the MPA data as an example. Also in that workshop, users will learn how to edit and upload MPA data, photos, videos and stories to http://www.planetocean.org. This web portal will be the main source for the best

marine conservation information that allows users to add MPA data and multimedia content that will be displayed in Google Earth. This web portal is produced by the IUCN WCPA - Marine in collaboration with many partners, which serves as a platform to continually improve the World Database on Protected Areas.

Among the technical skills that the attendees will pick up from the workshop are creating and editing placemarks, lines and polygons; creating polygons from GPS and GIS data and also making their very own Google Earth layer. Apart from learning these new technical skills, the attendees may be eligible to receive a free copy of Google Earth Pro (valued at USD400/year).

Attendance to these workshops are free and drop-ins are welcome, but to guarantee a seat, please email iucn_getraining@protectplanetocean.org, specifying your preferred workshop date.

World Ocean Conference Available dates are May 12, 13, or 14. Timeslots: 9am-11am; 11am-1pm; 1pm-3pm; 3pm-5pm Location: IUCN / MPAs in Google Earth / CTI / Reefbase booth, International Ocean Science, Technology & Symposium

International Marine Conservation Congress Please note that you are required to bring your laptop to get hands-on training, with the installation of Google Earth 5.0 from http://earth.google.com. Available dates are May 21, 22, 23, or 24 Timeslots: 1:30-4:00 PM on all dates Location: JC Bistro cafe (150), Johnson Center, George Mason University

ReefBase Publication Database

1. A Conservation Value Index to facilitate coral reef evaluation and assessment

Due to the importance of coral reefs to local communities and the increasing level of natural and anthropogenic impacts upon them, accurate monitoring and assessment of reef condition is necessary to allow the management and sustainable use of these resources.

This study tests and compares several commonly utilised benthic sampling techniques and whether they can be implemented by semi-skilled volunteers to provide data to assess reef condition and help prioritise areas for conservation. The study identified line transects as the most suitable benthic data collection method along with time restricted belt transects for the fish assemblage. Data collected by volunteers after a week long training period was found not to be significantly different from that collected by experienced reef surveyors.

McMellor, S. 2007. A Conservation Value Index to facilitate coral reef evaluation and assessment. Coral Reef Research Unit, University of Essex. 237pp. http://www.reefbase.org/resource_center/publication/main.aspx?refid=27401

2. Temporal dynamics in coral bioindicators for water quality on coastal coral reefs of the Great Barrier Reef

There is a need to identify effective coral bioindicators that provide quantifiable links between changes in water quality and the condition of coastal coral reefs. Temporal variation in a range of coral bioindicators including symbiont density, concentration of chlorophyll a, skeletal density and colony brightness of Pocillopora damicornis, as well as colony brightness and density of macro-bioeroders of massive Porites spp. was examined for 2 years on a coastal coral reef of the Great Barrier Reef. The specificity to changes in water quality varied among bioindicators.

Cooper T.F., P.V. Ridd , K.E. Ulstrup, C. Humphrey, M. Slivkoff and K.E. Fabricius. 2008. Temporal dynamics in coral bioindicators for water quality on coastal coral reefs of the Great Barrier Reef. Marine and Freshwater Research 59: 703-716pp. http://www.reefbase.org/resource_center/publication/main.aspx?refid=27396

3. High mushroom corals biodiversity (Scleractinia: Fungiidae) from the region of Pulisan (northeast coast of Sulawesi, Indonesia)

The comparison of the mushroom corals fauna of Pulisan region with other areas in or near the "Coral Triangle" indicates that species classified as "rare" at a place can be common elsewhere and vice versa. The exceptional mushroom coral biodiversity found in the region of Pulisan could be explained by the great variety of reef habitats found in that region (shallow reef environments, reef slopes more or less exposed to wave action, soft inter-reef substrates,). Considering conservation biology, the area of Pulisan is a particularly important key area because it gathers, on a very restricted surface (74 km²), a great number of mushroom coral species among which several rare species. Its protection would make it possible to constitute a species reservoir likely to provide species in other areas subjected to more or less important natural or anthropic disturbances.

Scaps, P., V. Denis, S. Berhimpon and F. Runtukahu. 2007. High mushroom corals biodiversity (Scleractinia: Fungiidae) from the region of Pulisan (north-east coast of Sulawesi, Indonesia). Bull. Soc. zool. Fr., 2007, 132(1): 87-108pp. http://www.reefbase.org/resource_center/publication/main.aspx?refid=27394

4. Coral recruitment during a post-bleaching recovery period

Successful coral settlement and recruitment is critical to the resilience of coral reefs. Four of the six coral genera (Acropora, Montipora, Pocillopora and Porites) showed higher settlement during the major spawning season (October to December 2001), while the Unknowns, followed by Pocillopora and Porites were dominant during the minor spawning season (March to April 2002). Of the two tile types used, terracotta tiles were the preferred settlement substrate over ceramic tiles, and this could be attributed to its rough surface which possibly reduced spat predation by providing a cryptic location.

Vave, R. 2005. Coral recruitment during a post-bleaching recovery period. University of the South Pacific. http://www.reefbase.org/resource_center/publication/main.aspx?refid=27384

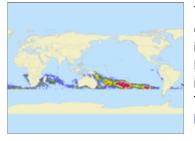
5. The structure of coral reef benthic communities at Saint-Gilles la Saline in 1987 (Réunion, Mascarene archipelago, SW Indian Ocean)

This study documents the structure of benthic communities on the Saint-Gilles La Saline coral reef flat, the most highly evolved fringing reef of Reunion, a high volcanic island belonging to the Mascarene Archipelago. A total of 17 radials and 169 line transects were surveyed along the 9-km-long reef flat. A phytosociological classification based on the algal and hard coral dominance, and a "Principal Component Analysis" (PCA) based on substrate categories and densities of echinoderms and Stegastes (sedentary fish species) both opposed two types of benthic communities.

Naim, O. 2006. The structure of coral reef benthic communities at Saint-Gilles Ia Saline in 1987 (Réunion, Mascarene archipelago, SW Indian Ocean). The Journal of Nature, 18(1): 13-31pp. http://www.reefbase.org/resource_center/publication/main.aspx?refid=27386

Online GIS

1. March 2009 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 March 2009 maps, click here. http://reefgis.reefbase.org/redirect.aspx?urlid=24515

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