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Aerial view of Coastal Reefs in Tamandaré, APA Costa dos Corais (photo by Antonio Henrique)

Editorial note: Please address all your comments, requests, ideas for articles and news to the Editorial Team:

newsletter@icriforum.org

Back issues are available at

www.icriforum.org/newsletter.html

ICRI secretariat news

Update from the ICRI secretariat - The first General Meeting of the Japan/Palau Secretariat was kindly hosted in Koror, Palau from the 31st October - 2nd of November 2005. The Secretariat was very pleased to welcome Tonga as a new ICRI member, and the re-engagement of Fiji and the Solomon Islands in ICRI. The meeting benefited enormously from a joint session with the US Coral Reef Task Force on Sustainable Financing. In summary:

- o The resolution on the "Artificial Coral Reef Restoration and Rehabilitation" was agreed.
- o The Secretariat's Plan of Action and the ICRI Secretariat budget for 2005-2007 were accepted.
- o A statement entitled "Coral Reefs in the Caribbean" was accepted.
- o The US announced their intention to host the next Secretariat from July 2007 to end of June 2009 and proposing to co-host the Secretariat with Mexico.

The ICRI meeting agreed the establishment of three ad hoc Committees:

- o To adapt the current score card.
- o To organize an ICRI side event at the CBD COP8 in Brazil, March 2006.
- o On enforcement and natural resource investigations in coral reef and associated ecosystems.

If you would like to join one of these committees, please contact the ICRIForum administrator:
administrator@icriforum.org.

The minutes, decisions and resolutions are available at:
http://www.icriforum.org/secretariat/palau_minutes.html.

We would like to remind members that we are still waiting for some members to identify a second focal point for their organization. It was agreed that 2 focal points were needed to ensure that information is getting through, particularly as so many of us are traveling so often. We would also welcome suggestions on identifying mangrove experts particularly those who work on an ecosystem level linking to coral reefs. Please consider the many colleagues you know and help us to build a better connection with reef-associated ecosystems

Thanks to the Japan delegation, the ICRI posters and brochure were displayed at 9th Conference of the Parties to the Ramsar Convention on Wetlands Kampala, Uganda (8-15 November 2005). The most relevant aspect to ICRI was the



ICRI Booth at the Ramsar COP

adoption of the *Resolution IX.4: The Ramsar Convention and conservation, production and sustainable use of fisheries resources* which specifically refers to coral reefs and associated ecosystems in par. 14, 15 & 35. For more information on the Ramsar COP 9, visit:
http://www.ramsar.org/index_cop9_e.htm.

Lastly, as you organise your calendar we would like to remind you of the next ICRI General Meeting. This will be held from 22nd to 23rd October in Cozumel, Mexico, shortly after the ITMEMS3 meeting from 16th to 20th October 2006. We look forward to seeing you then.

ICRI Side Event at the CBD COP - ICRI members agreed at the last ICRI General Meeting to organize an ICRI side event at CBD-COP8 in Curitiba, Brazil, 20th to 31st March 2006. The ICRI side event Ad Hoc Committee, established during the meeting, and lead by the ICRI Secretariat worked on planning and organization of this event. The theme of the side event is: "Coral Reef Management Past, Present and the Future; case studies and lessons learnt" and the objectives are:

- o to disseminate information about the current state of threatened coral reefs of the world and the importance of coral reef conservation and management to the participants of CBD-COP8; and
- o to disseminate ICRI's goals, objectives and activities to the participants of CBD-COP8.

The location of the side event will take place at Expo Trade Convention and Exhibition, Curitiba, Brazil and will be held during the lunch time side event slot between 13:15 and 14:45 (*date to be determined*).

The event will be facilitated by co-chair from Japan and Palau. A brief introduction about ICRI will be followed by three case-study presentation: Coral reefs of Brazil; Caribbean bleaching event; and ICRAN Mesoamerican Reef Alliance project. ICRI materials such as ICRI key documents (Renewed Call to Action, Framework for Action, etc.), ICRI & ITMEMS3 leaflets, GCRMN tsunami report will be distributed during the event. For more information on the CBD COP 8, visit:
<http://www.biodiv.org/doc/meeting.aspx?mtg=COP-08>

For more information about the International Coral reef Initiative, contact the ICRI secretariat at:
icri@wcmc.org.uk or visit:
www.icriforum.org/secretariat.html

Monitoring of Brazilian Reefs: Status and Perspectives

by Beatrice Padovani Ferreira, Brazilian coordinator of the monitoring program

Coral reefs in Brazil are distributed along 3,000 km of the Brazilian Northeastern coast, and represent the only coral reef ecosystem in the South Atlantic. The reefs are mostly coastal and local populations depend largely on reef resources. In the northeast, over 18 million people live along the coast, one of the most densely occupied regions in the country. Overall, the human related activities that affect the Brazilian reefs are the same that threaten most coral reefs around the world, such as land use practices that increase sedimentation, domestic and agricultural pollution, overexploitation of reef resources, and uncontrolled tourism. Artisanal fisheries are a very important activity, both socially, economically and culturally, and also one of the bigger impacts. The tourism industry is growing every year, with numerous development projects for the region under way, representing in this scenario both a threat and an opportunity.



Montastrea cavernosa in Fernando de Noronha, Brazil
(photo by Leo Francini)

Brazilian shallow coral reefs contain 20 species of scleractinian corals, with 15 hermatypic zooxanthellate species and 5 azooxanthellate ahermatypic species (Castro and Pires, 2001, unpublished data). Five of the 15 hermatypic species are endemic to Brazilian waters. Of those, one species has an even more restricted distribution, only occurring on the reefs of Bahia State. The endemism is extended at the genus level, and includes relict forms only remotely related to recent Caribbean species (Laborel, 1970; Leão, 1983). The reef fish fauna, by contrast, is characterized by a high endemism of about 18 to 20% (Floeter and Gasparini, 2000) but differences between the Caribbean and the Brazilian provinces are at the species or subspecies level, with no genus restricted to the south-western Atlantic (Joyeux et al. 2001).

From 2002 to 2003 the Brazilian National Program of Biodiversity Conservation of the Ministry of the Environment, Brazil, funded the pilot project on the monitoring of Brazilian Reefs. The project, coordinated by the University of Pernambuco, was the first to monitor locations spread over more than 2000 kms along the Brazilian coast using the GCRMN Reef Check methodology, which was adapted to fit local requirements while permitting collection of the same basic data. New indicators were included and species

were identified within each category. The Reef Check methodology was selected for the assessments because of its volunteer, community-based nature, which allows for the involvement and participation of government staff, dive operators and NGOs. The idea was to test the Reef Check methodology for applicability and acceptance, to get an overall picture of the status of the reefs and to establish a national programme tailored to allow broad participation in order to achieve both monitoring and educational purposes. The main results will now be published in a report sponsored by the Ministry of Environment, to be distributed during the next 8th COP in Brazil coming march.

For the pilot phase, six representative regions of Brazilian reefs, between latitudes 3° and 18°S, were chosen for the assessment, including four coastal areas, one oceanic island and one atoll. The criteria we used for selection was representativeness under the broad distribution of reefs in Brazil, feasibility of access under good conditions, location inside the boundaries of marine protected areas and the presence of tourism. Marine Protected Areas were of the two main types established in Brazil: fully protected; and sustainable use, where extraction is allowed (including fisheries). The advantage of being inside a MPA was the existence of a management regime and government personnel that could be trained and involved in the monitoring.

From March 2002 to April 2003 Reef Check surveys were conducted along 192 transects, distributed in several areas and sites within these regions. In each area, survey sites were selected after discussion with local researchers and rangers.

Hard coral cover (scleractinians + milleporids) varied between 5 to 35%. Higher cover was found at Abrolhos reefs and in some restricted sites at Fernando de Noronha. Specific hard coral composition varied between regions, with lower diversity of corals registered at northern reefs.

Indicator species of fish, including Lutjanids, Scarids, Serranids and ornamental species were significantly less abundant in areas where fishing and collecting were allowed. The same pattern was observed for commercially exploited species of lobster and octopus. Larger species of groupers were generally absent of all areas with very few exceptions. In the summer of 2003, a synchronized event of bleaching was registered during surveys in four out of six monitored sites, and was also reported by one of the authors in Abrolhos, the fifth monitored area region. This event was of smaller proportion in terms of percentage of bleached colonies than the event in 1998, but quite significant in comparison with the proportion of colonies registered the previous year. This was the first large scale event registered simultaneously in Brazil and shows the importance of large scale monitoring.

Coral Reef News

The selected regions included sites with high percentages of coral cover, comparable to those observed in other Atlantic regions (Hodgson and Liebeler, 2002), as well as sites with very low coral cover. According to Jacques Laborel (pers. comm.) the coral formations in Brazil were already very poor in the 1960s, being never higher than 50% maximum and around 25% in average.

The method was efficient in revealing important patterns for Brazilian coral reefs. In relation to fishes and invertebrate species, fishing was the main variable driving the abundance of indicator species on Brazilian reefs.

As well as the authors, more than 32 volunteers participated in the surveys conducted during the present work, which also had the support of diving operators and local park rangers. Now the project has been funded for a second campaign, during 2005-2006, which included expansion to new sites outside the boundaries of protected areas of any type.

The effort was joined by two other projects, all working in the same sites and using the monitoring data for diagnosis and comparison. Still on the monitoring front, the Foco project (Environmental Health Diagnostics of Coral Reef Ecosystems Based on Benthic Foraminifera) is mapping impact in the coral reefs of the continental shelf through the observation of bleaching and/or deformation of benthic foraminiferal tests. The state of coral reef health is accessed by the use of the FORAM index, and data includes physio-chemical parameters as well as granulometry and mineralogy. On the recovery and restoration front, the Projeto Recifes Costeiros, an integrated coastal management initiative which started in 1998, funded by IADB, has shown by demonstrative experiments the potential for recovery of reef areas by the creation of small no take areas (www.recifescosteiros.org.br). More recent, the Coral Vivo project (<http://acd.ufjr.br/~prjcoralvivo>), started in 2004 and monitored for the first time the simultaneous spawning of an important reef builder, the Brazilian endemic coral species *Mussismilia hartti* both in situ and in aquarium, in sites located thousands of kilometers apart. Fertilizing experiments were successful, enhancing the hope of a recovery program for severely degraded areas.

A geographic information system was built using LANDSAT imagery and all information is being incorporated for future public use. All efforts represent an inter-institutional effort between universities, government agencies, NGOs, and the private sector, and will seek continuity.

For more information, contact Beatrice Padovani Ferreira, Department of Oceanography, Federal University of Pernambuco (Coordinator of Coral Reef Monitoring Project): beatrice@ufpe.br.

➤ **New Publication from UNEP-WCMC: "In the front line: Shoreline protection and other ecosystem services from mangroves and coral reefs".**

The tragic and devastating consequences of the Asian tsunami, December 2004, and the hurricanes and cyclones of 2005 were a wake up call for the global community, dramatically drawing attention to the dangers of undermining the services that coastal ecosystems provide to



humankind. This report has gathered lessons that have been learned since these events that will be relevant to future management of the coasts in the context of severe weather events and other potential consequences of global warming. More than ever it is essential to consider the full value of ecosystem services that is the benefits that people derive from ecosystems when making decisions about coastal development. The report can be downloaded at:

http://sea.unep-wcmc.org/resources/publications/UNEP_WCMC_bio_services/24.cfm.

➤ **Update on the Coral Reef Initiative for the South Pacific (CRISP) programme** - The CRISP programme, a French initiative for the protection and management of coral reefs in the Pacific, is developing its field implementation. Below, some brief updates of the ongoing work:

- New-Caledonia: A Marine Protected Area (MPA) is being set-up in Mont Panié (Hienghene area) in collaboration with WWF, CI and IRD. A survey is being done on the use of reef resources in Ouvéa island (Loyaulty islands) through a partnership between IRD and the University of the South Pacific
- Western Samoa: financial support is provided to the Aleipata Safata Marine Protected Area
- Support is provided to MPAs process in Solomon, Vanuatu, Kiribati and Tuvalu through the Foundation of the Peoples of the South Pacific International (FSPI)
- The coral reef monitoring network Polynesia Mana is reinforced in Tonga and Cook Islands (CRIOBE Moorea)
- The partnerships with South Pacific Unesco World heritage (New Caledonia and Kiribati), Reef Check (French Polynesia), Coral Reef Targeted Research and Capacity Building for Management (Restoration and Remediation working group) are still in progress
- The next CRISP General Meeting will be held in Suva (Fiji) on the March 4th, 2006.

For more information about the CRISP programme, contact Eric Clua: crisp@spc.int or visit the CRISP web

site: <http://www.crisponline.net> (a redesigned version of the web site will be launched within the next few weeks).

➤ **Update on the Coral Reef Targeted Research for Capacity Building and Management Program** - The Coral Reef Targeted Research for Capacity Building and Management Program



(www.gefcoral.org) - supported by the Global Environment Facility, The World Bank, and The University of Queensland, Australia, has just completed the first year of its Phase 1 project. The program was created to fill critical information gaps for coral reef ecosystems in 4 major regions (Eastern Africa, Mesoamerica, the Philippines, and Australasia) and to link the findings to strengthen management actions and policy. The program involves a network of over 70 international scientists representing more than 40 institutions worldwide. This network is using training models to share methods, tools and techniques, to collaboratively target research in each of the regions, and to enhance scientific capacity and management within the regions. Five-Year Work Programs have been approved for each of the six thematic working groups that were defined during the scoping phase of the project and in consultation with managers and scientists. They are:

1. Coral Bleaching and local ecological factors
2. Coral Disease
3. Coral Reef Connectivity
4. Coral Reef Restoration and Remediation
5. Remote Sensing and
6. Modeling and Decision Support

The program integrates scientific information, collaborative research, training and capacity building for young scientists and managers from developing countries. Targeted research is being conducted at sites in each region and in association with established marine laboratories at four operational centers, (or "Centers of Excellence") located in Zanzibar, Tanzania; Puerto Morelos, Mexico; Bolinao, Philippines; and Heron Island, Australia. Satellite study sites are also located in Belize and Palau. In this first year, graduate and post-graduate scholarships have been provided to 25 developing country students program-wide by Working Groups and Centers of Excellence.

In 2005, the CRTR Program supported training, research workshops and stakeholder consultation/communication meetings in every region by Working Groups or Centers. In February, 2005, the Restoration and Remediation Working Group produced an Advisory Brief on coral reef restoration following the Asian tsunami, and is working to develop a set of guidelines for restoration based on current knowledge:

http://www.icriforum.org/secretariat/PDF/RRWG_tsunami_Advisory_Brief_final.pdf

In March and June, 2005, the Connectivity Working Group held two training workshops with Caribbean-based managers and has published an opinion paper on key issues to bridge science with management in support of Marine Protected Areas (<http://shiftingbaselines.org/blog/Saleetal2005TREEMPAreview1.pdf>). During May and June, 2005, a joint Targeted Research Training Workshop of the Bleaching and Disease Working Groups met to address a range of research issues on thermal stress, bleaching and disease, and involved more than 70 international participants over a three week period. The Disease Working Group has completed a global disease assessment:

(http://www.icriforum.org/secretariat/palauugm/ITEM_11_2_disease.pdf).

In October, 2005, the Remote Sensing Working Group (including the NOAA Coral Reef Watch program) held training workshops for managers in Mexico and the Philippines (www.msi.upd.edu.ph/GEF_RSWG). The RSWG has also produced a website of coral reef video footage available for downloading (<http://www.reefvid.org>). The Working Groups have coordinated common sampling methods for repeated measures of key coral reef processes for each of the four regions.

The Bleaching and Disease Working Groups and Centers of Excellence in Mexico and Australia have tracked major bleaching events in the Caribbean and the Great Barrier Reef during 2005 and the first part of 2006, and in Mexico, establishment of study sites and sampling were already in place before Hurricanes Emily and Wilma (July and October, 2005 respectively).

Working Group members have produced more than six journal publications during 2005 related to the Targeted Research Program and the implications for management.

The CRTR training and outreach workshops taking place in 2006 include the following:

- A Disease Working Group Meeting in Heron Island, Australia - January, 2006
- A Center of Excellence Organizational meeting in Heron Island, Australia - March, 2006
- Coral Taxonomy training in Bolinao, Philippines - March, 2006
- A Disease Working Group Training in Zanzibar, Tanzania - April, 2006 (co-sponsored with the Living Oceans Foundation)
- A Restoration and Remediation Training in Palau - April, 2006
- The Connectivity Working Group will be holding its 3rd workshop in a series of training workshops for recruitment monitoring of fish, corals and lobster in Akumal, Mexico during the first week in April, 2006
- A Remote Sensing Working Group Meeting/Training in Bolinao, Philippines (March, 2006) and then Palau- April, 2006

- o A Course on Marine Protected Areas at the Center of Excellence in Puerto Morelos, Mexico - June, 2006
- o A Course on Photobiology of Corals (and Coral Bleaching) at the Center of Excellence in Puerto Morelos, Mexico - June, 2006
- o A Center of Excellence Workshop in Bolinao, Philippines with local community stakeholders - August, 2006
- o CRTR information for managers and participation during ITMEMS 3, October, 2006.

For more information on the CRTR, the workshops, or to receive copies of articles, please contact Andy Hooten (ajh@environmental-services.com), Melanie King (M.King@cms.uq.edu.au) or Marea Hatzios (MHatzios@worldbank.org) or visit www.gefcoral.org.

➤ **Three Species of Corals Proposed for Endangered Species Designation in U.S. by DeeVon Quirolo, Executive Director, REEF RELIEF** - On March 4, 2004, the Center for Biological Diversity petitioned the National Marine Fisheries Service to place Elkhorn (*Acropora palmata*), Staghorn (*A. cervicornis*), and the rare Fused Staghorn (*A. prolifera*) onto the list of endangered species and to designate critical habitat under the Endangered Species Act of 1973, as amended.

NOAA Fisheries responded in June, 2005, with a proposal to list Elkhorn and Staghorn (but not Fused Staghorn) corals as threatened, rather than endangered. Public hearings were held and many comments were submitted, including those by a coalition of ocean conservation organizations and individuals that signed onto the comments of Reef Relief, a nonprofit organization headquartered in Key West, Florida.

The Reef Relief coalition encouraged NOAA Fisheries to include all three species for additional protection, including the rare Fused Staghorn, based on the similarity of appearance protocol. It will be difficult for Border Patrol officers to distinguish between these varieties of acroporid corals when trying to enforce the designation in the field. In addition, the fused Staghorn (*Acropora prolifera*) is far rarer than Elkhorn (*A. palmata*) or Staghorn (*A. cervicornis*) and is thought to be a hybrid of the other two species. In addition, it comes in a wide variety of morphologies spanning the range between Elkhorn and Staghorn. While it is not yet known if it is sterile or reproductively viable, protection is needed because if it is reproductively viable, it may function as a true species. And even if outcrossing events with the other species are rare, it may be capable of passing genes for disease resistance between them, and so prove to be important for their survival.

Secondly, the groups encouraged the designation of the three acroporid corals as endangered, rather than threatened, based on the severity of population losses. The NOAA review team found that in the few

locations where quantitative data are available (i.e. Florida Keys, Dry Tortugas, Jamaica and the US VI), declines in abundance are estimated at greater than 97 percent. Even though some recruitment is occurring, new recruits appear to be suffering mortality faster than they can mature; and the genetic origin of the recruits is unknown, so that no positive assessment can be made that the species can recover throughout the Caribbean. Given their rapid decline and the unknowns regarding whether small remnant populations will survive, the conservationists noted that the precautionary approach would justify the additional level of protection of endangered.

NOAA also solicited recommendations for designation of critical habitat for the corals under the Endangered Species designation. The environmental coalition proposed that coral reefs in the Florida Keys; Broward and Palm Beach County, Florida; Puerto Rico; U.S. Virgin Islands and Navassa be included.

The success of the Endangered Species designation process will be proven in the actions to be taken once the designation is in place. The coalition supported the following actions to increase coral reef protection:

Reduce global warming and aerial contamination of coral reefs through adoption of a federal energy policy that replaces dependence on fossil fuels with renewal sources of energy.

Dedicate funding to upgrade wastewater and stormwater treatment in upland areas near coral reefs.

Agriculture and stormwater runoff onto coral reefs should not be permitted.

Finally, the coalition issued a strong statement of support for the Endangered Species Act, noting that "It is our nation's safety net for fish, wildlife, and plants on the brink of extinction. We owe it to our children and grandchildren to be good stewards of the environment and leave a legacy of protection endangered species and the special places they call home. The Endangered Species Act works. Recent studies have concluded that extinctions in the United States have been reduced by an order of magnitude because of the Endangered Species Act's effectiveness. Our Caribbean corals need the Endangered Species Act to help them recover. The Endangered Species Act will provide these corals with a comprehensive recovery plan that will serve as a strategic and comprehensive blueprint for research into coral diseases and their cures."

The comments represented REEF RELIEF, Global Coral Reef Alliance, ECOMB Environmental Coalition of Miami, Blue Frontier Campaign, Don DeMaria, Friends of the Everglades, Surfrider Foundation South Florida Chapter, Surfrider Foundation Palm Beach County Chapter, Curtis Kruer, Tampa Bay Watch Inc., M-10 Coalition, Isabel Institute, La Liga Ecologica Puertorriquena del Noroeste and Last Stand.

NOAA is considering the public comments and will schedule additional public hearings on this

designation. For more information, visit www.reefrelief.org.

➤ **CORDIO and IUCN released the CORDIO Status Report 2005**, which paints a rather bleak picture of the current status of Indian Ocean coral reefs and coastal resources. The report also includes two chapters on the effects of the Dec 2004 tsunami. This report, based on the assessments of 50 contributing authors focusing on coral reefs and related coastal ecosystems, and dependent communities in 9 countries in South Asia and the central and western Indian Ocean, focuses on: 1) the Status of Coral Reefs, and 2) The Actions Necessary to Achieve Sustainable Use of Coral Reef Resources including i) Research and Monitoring, ii) Management and Governance iii) Alternative Livelihoods and Income Diversification, iv) Education and Awareness (<http://www.iucn.org/themes/marine/pubs/pubs.htm>)

➤ **Recent Data Additions to CoRIS** - The following data sets were recently added to the NOAA Coral Reef Information System (CoRIS): (1) NOAA Atlantic Oceanographic and Meteorological Laboratory (AOML) Sustained Ecological Research Related to the Management of the Florida Keys Seascape (SEAKEYS) Near Real-time Coastal-Marine Automated Network (C-MAN) data for the Florida Keys, (2) AOML Integrated Coral Observing Network (ICON) Near Real-time data for Salt River Bay, U.S. Virgin Islands and North Norman's Reef, Bahamas (http://www.coral.noaa.gov/crw/real_data.shtml), and (3) Pacific Islands Fishery Science Center (PIFSC) Coral Reef Ecosystem Division (CRED) Benthic Ecological Assessments of Corals surveys. Presently, CoRIS has 1,093 metadata records that provide CoRIS users access to 13,912 coral-related products via the CoRIS website. In addition to new data, the CoRIS Glossary has been expanded by over 300 new terms, and the authoritative table of species and higher taxa reported in CoRIS metadata has been updated. Visit www.coris.noaa.gov to find these updates and other coral information.

➤ **New regional conservation network established in the Dutch Caribbean** - Marine protected areas on the islands of Aruba, Bonaire, Curacao, St Maarten, St Eustatius and Saba have formed a regional network called the Dutch Caribbean Nature Alliance.



Source: DCNA web site (<http://www.dcnanature.org>)

The region has a reputation for outstanding and innovative efforts to conserve its well-developed coral reef, mangrove and seagrass ecosystems and to protect existing high levels of endemism and biodiversity.

However, active management and long-term strategies to deal with the threats such as over-fishing, development and pollution have, in the past, been hampered by sporadic funding crises and the lack of a united voice, both at home and overseas.

The Dutch Caribbean Nature Alliance has evolved out of five years of grass roots research and debate involving conservationists and stakeholders on all six islands about the most effective way of framing a joint response to these shared problems.

The new umbrella organization's first achievement has been to attract significant short term funding from the Dutch Postcode Lottery in the Netherlands and from the Dutch Government that will be used to set up a Trust Fund.

The goal of the Trust Fund is to put the parks on a sustainable financial footing by covering the management and operational costs of one marine and one terrestrial park per island.

It will take anything up to ten years to realize this ambition. Meanwhile, DCNA is working hard to increase capacity within the Parks by providing training and staff exchange programmes as well as developing standardized operational protocols, management and strategic planning. Internationally DCNA is focusing on fundraising and communication.

Importantly, DCNA plans to share its knowledge and experience of regional network building. Their new website DCNANature.org will operate as an online resource offering detailed data on biodiversity, research and conservation projects within the Dutch Caribbean. DCNA's policy is to make information as widely available as possible so that it can be used as a 'roadmap' by interested parties for the creation of a conservation network.

For more information, contact Kalli De Meyer (executive director of the Dutch Caribbean Nature Alliance): kdm@telbonet.an or visit: <http://www.dcnanature.org>.

➤ **CoralWatch focus on corals annual workshop**

- CoralWatch (www.coralwatch.org) had hosted Focus on Corals workshops on Heron Island, southern Great Barrier Reef, Australia during the previous three years. The workshops are designed to show marine educators how they can use a simple coral bleaching monitoring technique both in the classroom and on the reef. Attendees learn how they



can use the CoralWatch technique to collect valuable scientific data while increasing awareness about coral reefs and environmental issues.

Bookings are now being taken for the fourth workshop, to be held during early January 2007. Book now because space is strictly limited.

Where: Heron Island Research Station, southern Great Barrier Reef, Australia

When: Friday 5 to Tuesday 9 January 2007

Cost: \$600 inc. GST (non-profit cost recovery only) *includes* return catamaran trip from Gladstone to Heron Island, 4 nights accommodation (Friday to Monday), all meals (Friday lunch through Tuesday lunch) 1 hour of boat-based snorkelling on the Great Barrier Reef (weather dependent), guided reef walk and fluorescent night snorkel.

The workshops show just how easily the CoralWatch Coral Health Chart, and the accompanying Reef Education Package, can be integrated into your classroom-based and field-based activities. The Reef Education Package contains both reef-based and computer-based activities, the latter providing groups unable to visit the reef with a very valuable opportunity to learn about coral reefs and environmental issues such as global warming and coral bleaching.

Coral reefs require urgent attention if they are to be enjoyed by future generations. There are many threats to reefs, and coral bleaching is particularly concerning because it is a worldwide phenomenon that is occurring with increasing frequency and severity and often leading to coral death. Focus on Corals 2007 will show you what you can do to help.

Previous instructors include: Prof. Justin Marshall, Vision, Touch & Hearing Research Centre (VTHRC), University of Queensland (UQ), Prof. Ove Hoegh-Guldberg, Director of Heron Island Research Station and Centre for Marine Studies (CMS), UQ, Dr. Uli Siebeck, VTHRC, UQ, Craig Reid, Queensland marine educator, Dr. Paul Bird, VTHRC, UQ and Kylie McPherson, VTHRC, UQ, Kylie Greig, Heron Island Research Station and Dr. Sandy Zicus, Bright Minds, UQ.

To make a booking or for further details please visit www.coralwatch.org or contact info@coralwatch.org.

➤ **Task Force Makes Progress on Caribbean Bleaching Response Effort** - The U.S. Coral Reef Task Force (USCRTF) passed a resolution at its November meeting in Palau to mobilize efforts across the Caribbean to monitor and assess short- and long-term impacts of the 2005 warming and bleaching event. In accordance with this resolution, the USCRTF Bleaching Committee has held conference calls to bring together and solicit input from NOAA and Dept. of Interior personnel, as well as from other federal agencies, NGO partners, and local Caribbean managers. The NOAA points of contact are Dr. Mark

Eakin (NESDIS) and Dr. Tom Hourigan (NMFS). The outcomes of the initial meetings include the development of a 3-phase response approach (including an initial response, near-term reporting and assessment, and long-term monitoring) and identification of key partners, resources, and issues. In order to collect more detailed information, a questionnaire spreadsheet has been developed for bleaching reports and is available for download at the website

<http://coralreefwatch.noaa.gov/caribbean2005>.

➤ **Community Centred Conservation in the Comoros by Chris Poonian, Projects Manager, Community Centred Conservation (C3)** - The Comoros archipelago harbors impressive biodiversity and a wide range of habitats, both marine and terrestrial. Yet its natural richness contrasts with the poverty of its people. Comorian marine habitats and species are particularly vulnerable as a result of human activities and unsustainable utilization of resources. Overfishing, destructive fishing techniques and anchoring on live coral are serious threats in the region. However, artisanal fishing is a vital sector on which the country depends for both animal protein and economic security. Mohéli Marine Park was established in 2001, and is a critical component of the islands' marine resource management strategy. The park covers 404 square km, extending from the coast to a depth of 100m and includes marine habitats such as coral reefs, seagrass and mangroves; it protects significant coral reef fisheries as well as endangered dugong (*Dugong dugon*) and sea turtle (*Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata*) populations. It is co-managed by local communities, and protected by a team of 10 ecogardes. Unfortunately, the park is severely lacking in financial and technical capacity.

Towards the end of 2005, Community Centred Conservation (C3), a British NGO, carried out a reconnaissance visit to the Comoros and implemented two projects, a mooring buoy project, funded by PADI Project AWARE and a dive-training project, funded by Reef Conservation UK. C3 works in the Comoros in collaboration with Mohéli Marine Park and AIDE (Association pour le Développement et l'Environnement), a local NGO, which is responsible for the Comorian national coral reef monitoring programme. We would like to express our gratitude to both our in-country partners and the donors that funded these two projects.

Coral reefs within Mohéli Marine Park are vulnerable to anchor damage since local boatmen are unable to afford commercially made anchors and normally utilize rock anchors. C3 installed 10 mooring buoys in Mohéli Marine Park in areas that are popular with tourists and at coral reef sites monitored by AIDE. These buoys were constructed completely of low-cost, locally available materials to ensure long-term sustainability. In addition, C3 is writing an instruction leaflet in French on the use and maintenance of these buoys.

C3 has also trained four Comorians involved in marine conservation as PADI Open Water Divers to increase coral reef monitoring capacity in the Comoros. Four candidates were chosen following consultation with AIDE. They included two individuals involved in the set-up of the proposed coelacanth park on Grand Comore, an ecoguide from Mohéli Marine Park and a member of AIDE already involved in coral reef snorkel surveys.

C3 has plans to establish long-term research and training programmes in the Comoros during 2006. Further information on C3's work in the Comoros is available at www.c-3.org.uk, or by contacting info@c-3.org.uk.

➤ **Highlights from the ICRAN-Mesoamerican Reef Alliance (ICRAN-MAR)** - As part of its pioneering efforts to combat coral reef degradation, the innovative ICRAN MAR initiative and its partners (WRI, UNEP-WCMC, UNEP-DTIE, CORAL, WWF, Reef Check) concentrate efforts in barrier reef conservation by focusing on achieving tangible results at the local and regional level in the components of watershed management, sustainable fisheries, and sustainable tourism by actively engaging the public and private sector. Geared to build partnerships with policy makers, agro-industry officials, marine recreation suppliers, hotels, and the tourism industry, ICRAN MAR and partners seek to continue the practice of sustainability in its endeavors, in addition to further funding after project completion in 2007. Due to the trendsetting and dynamic results achieved by implementing partners throughout the Mesoamerican region (Mexico, Guatemala, Honduras, Belize) over 18 months, this USAID/UNF funded project was awarded the "Best Environmental Initiative of the year" by Scuba Diving Magazine and was featured in the November 2005 issue.

As part of its efforts to reduce contaminants in the watershed, WWF has been allowed access to work with and open dialogue with agro-industries (Dole, Chiquita, Fyffes, Crop Life) in the Mesoamerican region and identify the most pressing threats derived from agricultural pollution and seek their commitment through memorandum of understanding (MoU's) for the implementation of Better Practices. Utilizing state of the art technology by NASA and NOAA, as part of its' collaborative efforts WRI in conjunction with UNEP-WCMC and in coordination with local counterparts, have compiled data sets reflecting the best available information in land cover for the MAR region as well as a complete delineation of the regions watersheds. Hydrological and circulation models will be used to produce a series of scenarios on the potential impacts of land-use activities in the region aimed at influencing policy-makers. As a preliminary indicator of relative threat to the MAR, WRI produced the Belize Coastal Atlas, a rich data product that includes GIS data, reports, and maps of threats to coral reefs in Belize and for the entire Mesoamerican region.

WWF has led training workshops in best fishing practices, ecotourism and mariculture for fishermen. WWF is assisting with studies on the development of markets and processing potential in the region which coincides with workshops held in Belize City, and Placencia, Belize on the use of *Eucheuma* *Isiforme* and *Graciliaria* seed material in conjunction with Alan Smith, leading regional expert and trainer from CANARI in St. Lucia, and the leader of the Seaweed Farmers Association of St. Lucia Leo Francis.

Activities in sustainable tourism led by CORAL, WWF, UNEP-DTIE engages a broad spectrum of stakeholders in the marine industry and coral reef preservation into the development of a collaborative Standards and Code Taskforce to create voluntary standards in conservation for scuba diving, boat operations, snorkeling, and beachfront activities ensuring sustainability of the initiative in the form of policy and commitments. The first of such interactive taskforce for the scuba diving standard ended January 27th 2006, while other SCT's will begin in upcoming weeks. The December issue of Scuba Diving highlighted the work of the Sandy Bay and West End Marine Park Association in Roatan, Honduras (an ICRAN MAR pilot site) in reducing poaching through marine patrols that have been funded partially by the Coral Reef Alliance (CORAL).

For the remaining 18 months of the project, partners will continue activities in their area of expertise and will engage in capitalizing to-date's achievements by seeking to consolidate their continuation beyond the life of the project and to further expand alliances in the region. For more information contact project Coordinator Liza Agudelo (lagudelo@icran.org) or visit: www.icranmar.org.

➤ For more coral reef news, job opportunities... visit the Bulletin Board of the ICRIForum: <http://www.icriforum.org/router.cfm?show=bb.cfm>

Upcoming events

- **Ocean Sciences Meeting** (Honolulu, Hawaii, February 20, 2006 - February 24, 2006) - The 13th Ocean Sciences Meeting is a joint meeting of ASLO, TOS and AGU. 5 sessions on Coral Reefs. Web site: <http://www.agu.org/meetings/os06>
- **Post-Disaster Assessment and Monitoring of Coastal Ecosystems and Biological and Cultural Diversity in the Indian Ocean and Asian Waters** (Phuket, February 20, 2006 - February 24, 2006) - Structured in such a way as to have focused keynotes and plenary, challenge sessions within the six themes, and a field trip to Khao Lak, one of the worst tsunami-hit places northwest of Phuket. Web site: <http://westpac.unescobkk.org>

- **The World Maritime Technology Conference** (London, March 6, 2006 - March 10, 2006) - Technical Programme: "reefs of the world".
Web site: <http://www.wmtc2006.com>
- **CBD COP 8** (Curitiba, Brazil, March 20, 2006 - March 31, 2006) - Eighth Meeting of the Conference of the Parties to the Convention on Biological Diversity.
Web site: <http://www.biodiv.org/doc/meeting.asp?lg=0&mtg=cop-08>
- **First International Symposium on Mangroves As Fish Habitat** (Miami, Florida, April 19, 2006 - April 21, 2006) - Forum for the exchange of ideas, approaches, methods and pertinent data on the linkages between mangrove forests and the fishes and fisheries associated with them.
Web site: <http://www.rsmas.miami.edu/conference/mangrove-fish-habitat>
- **7th International Sponge Symposium** (Rio de Janeiro, May 7, 2006 - May 13, 2006) - "Biodiversity, Innovation & Sustainability".
Web site: <http://acd.ufrj.br/hajdu/7thISS>
- **The Coastal Society 20th Biennial Conference** (St. Pete Beach, Florida, May 14, 2006 - May 17, 2006) - Charting a New Course: Shaping Solutions for the Coast.
Web site: <http://www.thecoastalsociety.org/conference/tcs20>
- **III International Symposium on Transboundary Waters Management** (Ciudad Real, May 30, 2006 - June 2, 2006) - Aims to serve as an integrating element for the continuous transfer of knowledge on transboundary waters management.
Web site: <http://www.uclm.es/congresos/twm/Index.htm>
- For more events, please visit the calendar section of the ICRIForum:
<http://www.icriforum.org/router.cfm?show=calendar.cfm>