CORAL REEF NEWS

Coral Reef Conservation Program
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NOAA Coral Reef News is a monthly e-newsletter established to provide current information on the activities of the National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Conservation Program (CRCP) and other relevant NOAA programs. The CRCP supports effective management and sound science to preserve, sustain and restore valuable coral reef ecosystems. Back issues are available at http://coralreef.noaa.gov/news/welcome.html.

IN THIS ISSUE:

OF SPECIAL NOTE

NOAA and DOI host the 17th U.S. Coral Reef Task Force Meeting. The U.S. Coral Reef Task Force members met March 1-2 in Washington D.C. to discuss priority issues for coral reef conservation and related policy considerations. A special session highlighting the status of the Local Action Strategies (LAS) initiative included presentations from field staff in all seven Task Force jurisdictions. State and territory managers conducting projects in two priority areas – land-based sources of pollution that impact reefs, and lack of public awareness of the threats facing reefs – provided a detailed accounting of their accomplishments, challenges, and needs for moving these local conservation efforts forward.

Deputy Secretary of the Interior, Lynn Scarlett, delivered the keynote address, challenging the Task Force to think beyond present approaches as they look to the future. The Task Force also heard from Jim Sanchirico, of Resources for the Future, on opportunities presented by the concept of ocean zoning as an alternative or complement to regulations for governing ocean resources.

Actions resulting from the meeting include the passage of a resolution supporting reauthorization of the Coral Reef Conservation Act, which is likely to be addressed by Congress this year. Other resolutions included support for joint leadership of the International Coral Reef Initiative by the United States and Mexico from mid 2007 through mid 2009 and support for the International Coral Reef Symposium. The latter is a once-every-four-year gathering of coral reef scientists and managers that is expected to draw 3,000 of the world's leading coral reef experts to Ft. Lauderdale, Florida in July 2008. It is the first time in 30 years the symposium has been held in the Unites States.

This meeting also included an International Year of the Reef (IYOR) Mini-Summit intended to inform and engage our partners and constituents in planning for and participating in the IYOR 2008. Over 70 individuals from almost 40 agencies, non-profit organizations, universities and other groups participated in helping shape plans for collaborative action and public education. To view agendas, presentations, public comment and more, visit the meeting page on the Task Force Web site.

ANNOUNCEMENTS

**First Lady and Hawai`i Governor Unveil Monument's Hawaiian Name.** First Lady Laura Bush joined Hawai`i Governor Linda Lingle in announcing the new Hawaiian name for the Northwestern Hawaiian Islands Marine National Monument. Mrs. Bush along with Department of the Interior Secretary Dirk Kempthorne, Department of Commerce Deputy Secretary David Sampson, and James Connaughton, chair of the White House Council on Environmental Quality, made the announcement on March 2nd in Honolulu, following a trip to Midway Atoll. The name Papahānaumokuākea refers to Hawaiian genealogy and the formation of the Hawaiian archipelago. The name was adopted through consultation with the Native Hawaiian Cultural Working Group, whose members have a longstanding interest and involvement in the region and come from relevant backgrounds including academic scholars, teachers, cultural practitioners, community activists, and resource managers.

NOAA Releases Coral Reef Ecosystem Research Plan. On March 1st, in conjunction with the U.S. Coral Reef Task Force meeting in Washington, D.C., the NOAA Coral Reef Conservation Program (CRCP) released a new document entitled 'NOAA's Coral Reef Ecosystem Research Plan for Fiscal Years 2007 to

2011' (Research Plan). The Research Plan provides coastal and ocean managers, scientists, and policy makers with scientific information to address the complex nature of the threats facing coral reef ecosystems, and identifies priority research needed to advance management action. The Research Plan is NOAA's first agency-wide coral reef ecosystem research plan. Covering all coral reef ecosystems under the jurisdiction of the U.S. and Pacific Freely Associated States, the plan provides a national perspective on the research needed to address the range of stresses affecting the health of coral reef ecosystems, summarizes the management and other issues that will drive research at the regional level, and focuses on the use of research to guide effective implementation of ecosystem-based management strategies. For more information, to download a PDF copy, or to request a hard copy, visit CoRIS. The Plan has already been downloaded over hundreds of times since its release; additionally, over 50 hard copies have been requested.

NOAA Releases Report on Coral Reef MPAs. The NOAA Coral Reef Conservation Program (CRCP) and Coastal Programs Division (CPD) of the Office of Ocean and Coastal Resource Management announce the publication of the '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'. This report was called for in the National Action Strategy of the U.S. Coral Reef Task Force and was presented to that interagency body of 12 federal agencies and seven states and territories at its 17th meeting on March 1-2 in Washington, D.C. The report was funded by the CRCP, coordinated by CPD, and is the first inventory and assessment of U.S. coral reef MPAs managed by state and territory governments. The report utilizes data collected in the National Marine Managed Inventory as well as the expertise of NOAA and state and territory co-authors to explore the management status of 207 MPAs located across the seven jurisdictions. The report also identifies major challenges to effective MPA management and offers a series of recommendations both at the national and local levels to improve MPA success. Download a PDF of the full report here.

CCMA Announces New Internet Availability of Benthic Mapping Data. The NOAA Coral Ecosystem Mapping Team announces two Web sites where geographic information system (GIS) data associated with the southern Florida Shallow-water Benthic Habitat Mapping project can be found. First, the NOS Data Explorer Web site provides access to nearly 100 georeferenced, high-resolution satellite images of southern Florida that are provided in several formats ready for use in image analysis and GIS software. The project's satellite imagery is available via the site's search function. Second, GIS data associated with the 1998 Benthic Habitats of the Florida Keys mapping project is now available . This project, lead by the National Ocean Service and the Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute, was begun in 1992 and resulted in the first maps of any U.S. coral ecosystem. For more information about these projects or instructions for downloading the imagery, contact the project manager.

UPDATES

Atlantic

SEFSC Staff Begin Last Leg of Cruise to Madison Swanson and Steamboat Lumps. Southeast Fisheries Science Center (SEFSC) Principal Investigators (PIs) at the Panama City and Pascagoula Laboratories are nearing completion of data collection on reef fish abundance and distribution in the northeast Gulf of Mexico Marine Protected Areas (MPAs) at Madison-Swanson and Steamboat Lumps. The majority of the data is being collected with digital video camera arrays and a five instrument

conductivity/temperature/ depth (CTD) recorder deployed in a stratified random pattern within habitat-delineated regions of the MPAs and an adjacent control area. Working 90-250 kilometers offshore on a 17 meter vessel in the middle of winter requires a careful watch of the weather. However, the PIs have completed three legs of the cruise between storm fronts, and surveyed 96 of the 133 stations. The PIs departed on March 5th for the final leg. This is an annual survey begun in 2001 and conducted during the gag (grouper) spawning season to assess the impacts of fishing restrictions on gag spawning aggregations at the outer edge of the continental shelf. Gag numbers and distribution are slowly increasing in the eastern Gulf. However, the rate of increase in the Madison-Swanson MPA is increasing at a significantly higher rate. This project is supported by NOAA's Coral Reef Conservation Program and the Gulf of Mexico Fishery Management Council.

Analysis Phase of SEFSC Acoustic Telemetry Project Begins. Data collection is now complete for the Coral Reef Conservation Program-funded acoustic telemetry project characterizing the habitat usage of black grouper (*Mycteroperca bonaci*). The project, initiated in October 2005, utilized 23 acoustic receivers moored in and around Conch Reef in Key Largo, Florida. In a collaborative effort between NOAA's Southeast Fisheries Science Center (SEFSC), the Pfleger Institute of Environmental Research (PIER), and the National Undersea Research Center (NURC), black grouper and several other species of reef fish were tracked within the array using surgically implanted acoustic tags. Dictated by the life of the acoustic tags, the last set of data was downloaded last month, resulting in approximately one year and five months of continuous data collection. Data analysis is now underway, and will result in an improved understanding of habitat utilization patterns, including seasonal movements and home ranges, of multiple species of reef fish.

NCRI Delivers Prototype Mapping Software to Improve Mapping, Monitoring, and Management of Coral Reefs. Sponsored by the National Centers for Coastal Ocean Science (NCCOS), the National Coral Reef Institute (NCRI) at Nova Southeastern University (NSU) recently delivered a prototype of mapping software to the sponsor. The Hybrid Mapping Tool (HMT) software uses high-resolution satellite or other source imagery in unison with new feature recognition algorithms to automatically delineate benthic habitats boundaries. NCRI worked closely with NCCOS and NOAA National Ocean Service Special Projects Office to complete the package. The project is geared to support ongoing NOAA coral reef mapping efforts in U.S. state, territorial, and federal waters, particularly the Florida Keys. Presently, operators manually digitize features from satellite data; the HMT software seeks to provide a reproducible tool to complement the human intuition relied upon in the current method and enable faster feature digitization. The software is now being evaluated to determine if further refinement is needed. NCRI is a Congressionally-directed program that is funded through a NCCOS grant and is a core component of NOAA's Coral Reef Conservation Program.

'Secrets of the Gulf' Expedition Launched. The ground-breaking 'Secrets of the Gulf' expedition, featuring more than a dozen partners, began February 27 with VIP and student tours of the U.S. Navy's nuclear powered research submarine (*NR-1*) and the submarine support vessel, *SSV Carolyn Chouest*. The expedition builds on previous work coordinated by the Flower Garden Banks National Marine Sanctuary (FGBNMS) and has several different, yet complementary, missions. These missions included exploration by FGBNMS researchers of deeper water low-relief ridges and scarps that connect the various banks along the continental shelf in the northwest Gulf of Mexico, including the banks that comprise the FGBNMS. Sanctuary researchers observed and

documented biota that utilize these 'hidden highways' between the banks to determine how the FGBNMS may be affected by events that occur outside its boundaries. University of Rhode Island researchers, led by Dr. Robert Ballard, explored the same areas for evidence of ancient shorelines and the people who may have lived there. Surveys were conducted using the *NR-1* submarine and the advanced remote ground unattended sensor (ARGUS) towsled during the mission. Real-time video from the towsled surveys was available to the general public on the OceansLive and Immersion Presents Web sites during the expedition week. Researchers viewed and interacted with the expedition from science consoles in Silver Spring, MD, University of Rhode Island, Mystic Aquarium, and Seattle, WA while Immersion Presents, a private organization, aired five broadcasts each day of the mission into classrooms and informal settings such as Boys and Girls Clubs. Students at the viewing sites around the country had the opportunity to ask questions of the scientists on board the vessel. Archived video will be available on the Immersion Presents Web site in the future. In addition, education modules were developed for the mission; curriculum extensions were also developed to meet the needs of upper elementary and middle school classrooms. Additional expedition information is available on the Sanctuaries Web site.

Poster Series Developed to Support 'Secrets of the Gulf' Expedition. The Flower Garden Banks National Marine Sanctuary (FGBNMS) research team is pleased to announce the development of a poster series depicting the conspicuous biota of the deepwater habitats of the Northwestern Gulf of Mexico, from depths between 50m to 150m. The series includes separate posters for antipatharians, octocorals, sponges, fishes, and algae/invertebrates. Many of the images of antipatharians, octocorals, and sponges are images of specimens sampled. The majority of the images were obtained using a remotely operated vehicle (ROV) over the course of five years. During this time, over 180 ROV surveys were conducted for a total dive time of over 218 hours. Close to 8500 high resolution digital still images were obtained, and nearly 250 directed samples were collected. This poster series has been developed in support of the 'Secrets of the Gulf' mission that occurred March 2-10. Educators and researchers used the posters as reference material during the mission both on shore and on board the Navy nuclear research submersible, *NR-1*, and the support vessel, the *SSV Carolyn Choest*. Higher resolution versions of the poster are soon be available here (scroll down to 'Science Posters').

NMFS Coral Experts Participate in IUCN-Sponsored Caribbean Red List Workshop. As part of a Global Marine Species Assessment initiative, The International Union for Conservation of Nature and Natural Resources (IUCN) sponsored a Red List workshop in Dominica from March 20-23 to assess corals, mangroves, seagrasses, and algae of the Caribbean. Five coral experts, including two from NOAA Fisheries' Habitat Conservation and Southeast Regional Office, developed a classification scheme for Caribbean corals based on their risk of extinction. Each of the 61 scleractinian coral species found on western Atlantic reefs was categorized as 1) critically endangered, 2) endangered, 3) vulnerable, 4) near threatened, 5) least concern or 6) data deficient. The provisional listings were: two Critically Endangered (*Acropora palmata* and *A. cervicornis*) ; two Endangered (*Montastraea faveolata* and *M. annularis*); two Vulnerable (*Oculina varicosa* and *Mycetophyllia ferox*) ; three Near Threatened (*Agaricia lamarcki* and *Agaricia tenufolia*); 40 Least Concern and 13 Data Deficient. Categorization was based upon an evaluation of changes in population size and geographic range, taking into account life history traits, threats, and conservation measures affecting those taxa. Next steps include submission of additional information, peer-review and final publication in early 2008 in the 2007 IUCN Red

List of Threatened Species. See the 2006 list here. A similar workshop to evaluate IndoPacific corals will be convened in this July in the Philippines.

Florida Benthic Mapping Project Receives Additional Funding Via Grant. The NOAA Coral Ecosystem Mapping Team is pleased to announce that the Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute (FWRI) has received a grant from the Florida Conserve Wildlife Tag Program to support the southern Florida Shallow-water Benthic Habitat Mapping project. The grant funds, matched by FWRI, will be used to produce a benthic habitat map of a portion of the Hawk Channel area of southern Florida.

Pacific

Protocols Developed to Help Prevent Spread of Invasive Species. The Papahānaumokuākea Marine National Monument research coordinator recently led multi-agency meetings to draft standardized protocols for dive and research gear disinfection between sites. This minimizes the possibility of inadvertently spreading coral disease pathogens and alien/invasive species between dive sites. Scientists from NOAA's National Marine Fisheries Service, the State of Hawaii's Department of Land and Natural Resouces, and the Hawai`i Institute of Marine Biology participated. The goal is for these protocols to be incorporated as special conditions on permits issued by the Monument.

Coral Disease Outbreak Response Training in Guam. As the result of a five-day training exercise in coral disease identification and outbreak investigative techniques, the Western Pacific has 15 new Coral Disease Outbreak Responders to assist in the event of an unusual coral disease outbreak. Classroom and field training exercises were held at the University of Guam Marine Laboratory from February 27 to March 3 for representatives of resource management agencies and monitoring programs in the Cook Islands, Saipan and Guam. Participants were introduced to coral diseases found in the region and taught methods to recognize and discriminate disease signs from physical injury (i.e., predation). They were also taught baseline assessment and monitoring techniques and coordinated response and investigation for Unusual Outbreak Response and Investigation. The topics covered included 1) concepts in outbreak investigations, (i.e., why they are valuable), 2) advanced planning and readiness, 3) using the Incident Command System to manage a response, 4) developing case files and 5) sample integrity, collection techniques, and handling.

**First Hawai`i Fisheries Extension Tour Begins.** Financed with Coral Reef Conservation Program funds, a Fisheries Extension Agent was hired for Hawai`i in January. The main focus of this position is to improve communication and information exchange between the Hawai`i Fishing Community and national and local resource managers. To this end, the week of March 26 marked the beginning of the first extension tour of shore line fishing locations on Oahu. While visiting with members of the Hawai`i fishing community, the Extension Agent will distribute outreach material from NOAA National Marine Fisheries Service (NMFS) and Hawai`i's Division of Aquatic Resources (HDAR). The Extension Agent will also listen to the concerns, needs and interests of local fishers, and follow up by supplying fisheries information as requested. Input received in the field will then by discussed with resource managers and scientists at NMFS and HDAR. Future tours will be scheduled as needed; next year the focus will move from Oahu to one of the other Hawaiian Islands.

International

CRCP and IPO Provide SocMON Technical Assistance and Funding in the Philippines. During March 5-7, Southeast Asia Socioeconomic Monitoring Network (SocMon SEA) held a training and partnership workshop in Puerto Princesa, Palawan State, Philippines. The workshop, which cemented a new partnership between NOAA, Conservation International-Philippines and Palawan State University, resulted in the training of 30 coastal management professionals in the SocMon methodology. Eight partner organizations committed to undertake socioeconomic assessments in coral reef areas throughout the Philippines, including Conservation International-Philippines, Palawan State University, the City of Puerto Princesa, the Palawan Council for Sustainable Development, and World Wildlife Fund-Philippines. NOAA's International Program Office (IPO) provided funding for the workshop and NOAA's Coral Reef Conservation Program (CRCP) provided technical assistance during the workshop as well as facilitation of new partnership development.

Publications

Grottoli, A.E. and C.M. Eakin. 2007. A review of modern coral $\delta^{18}O$ and $\Delta^{14}C$ proxy records. *Earth-Science Reviews* 81:67-91

Taylor, J.C. 2006. Emerging technologies for reef fisheries research and management. NOAA Professional Paper NMFS 5, 116 p. The following articles resulting from CRCP funded projects are found within the citation above:

- Gleason, Arthur C.R., Anne-Marie Eklund, R. Pamela Reid, and Veronique Koch. Acoustic signatures of the seafloor: tools for predicting grouper habitat.
- Johnston, Samuel V., Jose A. Rivera, Aida Rosario, Mark A. Timko, Patrick A. Nealson, and Kevin K. Kumagai. Hydroacoustic evaluation of spawning red hind (*Epinephelus guttatus*) aggregations along the coast of Puerto Rico in 2002 and 2003.
- Rand, Peter s., J. Christopher Taylor, and David B. Eggleston. A video method for quantifying size distribution, density, and three-dimensional spatial structure of reef fish spawning aggregations.
- Rivera, Jose A., Martha C. Prada, Jean-Luc Arsenault, Gary Moody, and Nicolas Benoit. Detecting fish aggregations from reef habitats mapped with high resolution side scan imagery.
- Taylor, J. Christopher, David B. Eggleston, and Peter S. Rand. Nassau grouper (*Epinephelus striatus*) spawning aggregations: hydroacoustic surveys and geostatistical analysis.

CORAL REEFS IN THE NEWS

Articles Mentioning NOAA

"Central Caribbean Marine Institute Sea Camp 2007" – March 21, 2007 (*Cayman Net News*, Cayman Islands). "The 8th Annual Caribbean Sea Camp, scheduled for 10-17 August is being hosted by the Little Cayman Research Centre (LCRC). The program was developed by the Central Caribbean Marine Institute (CCMI) and offers high school students the opportunity to learn Caribbean marine biology and conservation…Applications are being accepted through the months of April and May."

"Researchers See Global-Warming Signs Near, Far" – March 11, 2007 (*Denver Post*, CO). "….Joan Kleypas, a biologist with the National Center for Atmospheric Research in Boulder, has been studying coral reefs for more than two decades. Oceanographers once thought global

warming would be great for coral reefs, Kleypas said. 'With time, we realized the oceans were warming too fast,' Kleypas said. 'They cannot adapt, and it's killing them.'"

"Fatal Monk Seal Entanglements Linked to El Niño" – March 9, 2007 (*NewScientist*, UK). "A link between Hawaiian monk seals becoming entangled in discarded fishing gear and the global climatic phenomenon called El Niño has been revealed. The finding will help focus the cleanup efforts aimed at conserving the critically endangered animals."

"Coral Reef Conservation Act Reauthorization Heard in Subcommittee" – March 8, 2007 (Press release on *www.house.gov*, DC). "'Since its enactment in the year 2000, the Coral Reef Conservation Act has stimulated a greater commitment to protect, conserve and restore coral reef resources within jurisdictional waters of the United States….Clearly, if we wish to have coral reefs in the future, we cannot retreat from our efforts to protect them in the present,' Bordallo added."

"Science: Some Coral Reefs Resist Global Warming" – March 6, 2007 (*The Post Chronicle*, NJ). "….Cornell University ecology and evolutionary biology Professor Drew Harvell found Caribbean gorgonian sea fan corals not only are somewhat temperature resilient, but can also boost their cellular and enzymatic defenses to fight lethal microorganisms as temperatures rise."

"Filipino MIT Students Pioneer in Coral Conservation" – March 6, 2007 (*Asian Journal*, Philippines). "At the marine reserve in Sagay City, 82.9 kilometers north of Bacolod City, low-voltage current is being used to hasten coral growth five times and increase their survival by more than 20 times. The method is called BioRock, which is being implemented by young Filipino students from the Massachusetts Institute of Technology in the United States…."

"Papahanaumokuakea a Fitting Name for Islands' Rebirth" – March 6, 2007 (*Honolulu Star Bulletin*, HI). "The Papahanaumokuakea Marine National Monument has been given an eloquent name that underlines the importance of its preservation. A combination of Hawaiian words tracing the birthplace of the archipelago, the name also parallels the monument's station as a reservoir for marine animals and other wildlife."

"Threats to Coral Include Warmer Water, Pollution" – March 5, 2007 (*St. Petersburg Times*, FL). "Two species of coral are considered threatened as the vital organisms face more danger than ever."

"Camacho Lobbies for Coral Reef Protection" – March 3, 2007 (*Kuam News*, GU). "While in our nation's capitol on Thursday, Governor Felix Camacho urged the U.S. Coral Reef Task Force to increase their support for environmental protection initiatives….He added conservation of the reefs that protect Guam from storms, supply food, and generate tourism income is of a high priority."

Other articles

"Barrier Reef Suicide Risk" – March 22, 2007 (*The Daily Telegraph*, Australia). "Researchers have discovered that the World Heritage-listed area's coral reefs are bleaching and dying….Close scrutiny of the coral's cellular makeup shows it is killing itself….While cell suicide is usually contained in one area, the Centre of Excellence for Coral Reef Studies says the coral off north Queensland don't know how to stop dying."

"12 Percent of World's Groupers May Be Threatened" – March 21, 2007 (Conservation International press release on *www.conservation.org*, US and approx. 2 other sources). "….Twenty of 162 grouper species are potentially threatened with extinction, according to the first comprehensive assessment of the fish, released this month. The grouper's decline is

driven by a lack of proper fisheries management and by overfishing – both fueled by our appetite for the fish.**"**

"Floods Muddy Waters off the Great Barrier Reef" – March 19, 2007 (Australian Institute of Marine Science press release on *www.aims.gov.au*, Australia and approx. 1 other source). "For the first time in several years, large fresh water flood plumes carrying sediment, nutrients, other pollutants and debris from the mainland have travelled to the outer reefs of the Great Barrier Reef threatening vulnerable corals."

"Keys Need Return of Algae Eaters" – March 19, 2007 (*The News Press*, FL). "It was like an underwater Easter egg hunt. But Mote Marine Laboratory scientists Aaron Adams and Erich Bartels weren't looking for colored eggs last week on a rubble zone near Pickles Reef; their quarry was long-spined black sea urchins. Eventually, they hope to determine why the urchins, which were almost wiped out in the Caribbean basin in the early 1980s, have rebounded elsewhere but not in the Keys."

"Surveying Climate Change Impacts on Central America's Coral Reefs" – March 19, 2007 (World Wildlife Fund press release on *www.panda.org*, Switzerland). "A WWF survey shows that rising temperatures, altered rainfall and coral bleaching are among the main threats to Central America's Mesoamerican Reef."

"Realty Projects Threaten Reefs" – March 17, 2007 (*Gulf News*, United Arab Emirates). "Rich coral colonies in Oman's waters need close monitoring to protect them from threats that is posed by various elements, including development projects that are sprouting like mushrooms."

"Fishing Boat Destroys Small Portion of Coral Reefs in Dauin Marine Sanctuary" – March 16, 2007 (*Bayanihan*, Philippines). "Pencil-type corals were destroyed by an anchor from a fishing boat inside the marine sanctuary in Lipayo, Dauin in Negros Oriental, it was learned on Friday."

"Cultured Coral Could Help Repair Damaged Reefs, UF Scientists Say" – March 15, 2007 (University of Florida/Institute of Food and Agricultural Sciences press release on *www.news.ifas.ufl.edu*, FL and approx. 2 other sources). "Coral might be the slowest-growing crop ever farmed by the University of Florida, but researchers say damaged reefs could be repaired faster if they perfect methods to cultivate the marine organisms. UF experts are raising seven species of coral at the Tropical Aquaculture Laboratory in Ruskin, and next week they'll dive to check the progress of farmed corals returned to the wild last year."

"International Guidelines on Port Dredging to Protect Coral Reefs" – March 13, 2007 (*Dredging News Online*, United Kingdom). "International marine and port experts converged on Townsville in Australia recently to discuss guidelines for port construction and dredging to avoid harm to coral reefs."

"New Coral Species Found" – March 12, 2007 (*The Hindu*, India). "Thirteen new coral species have been identified in the Gulf of Mannar Marine National Park. But the gulf's existing coral reefs are deteriorating rapidly, with their area shrinking by 30 per cent over the last two decades."

"Mooring Buoys to Protect Coral Reefs" – March 11, 2007 (*Gulf News*, United Arab Emirates). "Mooring buoys have been placed at crucial anchoring points near coral reefs on the East Coast to prevent boats from lowering their anchors on precious marine biodiversity."

"Researcher Ventures into New Territory; Expedition to Gulfis His First Remote Exploration" – March 10. 2007 (*Norwich Bulletin*, CT). "….The progress of the trip, called 'Secrets of the Gulf,' has been broadcast live all week to audiences at the aquarium, as well as at other museums and Boys and Girls Clubs around the country. Ballard was readying to wrap up his crew's work Thursday and Friday."

"New Species of Snapper Discovered in Brazil" – March 9, 2007 (Conservation International press release on *www.conservation.org*, US and approx. 1 other source). "A popular game fish mistaken by scientists for a dog snapper is actually a new species discovered among the reefs of the Abrolhos region of the South Atlantic Ocean."

"Twenty Coral Reef Fishes Threatened with Extinction" – March 6, 2007 (World Conservation Union press release on *www.iucn.org*). "Twenty species of grouper, a globally important group of 162 coral reef food fishes, are threatened with extinction unless management or conservation measures are introduced. This was the conclusion of a panel of twenty experts from 10 countries at a recent conservation summit convened to assess the status of groupers worldwide."

"Plant-grazing Fish Boost Resilience of Coral Reefs Facing Stress" – March 8, 2007 (Cell Press press release on *www.eurekalert.org*, US). "The study's findings indicate that grazing by large herbivorous fishes plays a key role in the ability of coral reef ecosystems to recover from bleaching events and maintain resilience in the face of thermal stress due to rises in ocean temperatures."

"US Lawmaker Wants to Stop Cuba Offshore Oil Plan" – March 8, 2007 (*Reuters*, UK). "U.S. Rep. Ileana Ros-Lehtinen of Florida said Cuba's drilling plans could endanger her state's pristine beaches -- a prime driver of its tourist economy -- and endanger the only living coral reef in North America."

"'Killer Algae' Returns to Martin Reefs" – March 8, 2007 (*TC Palm*, FL). "*Caulerpa brachypus*, an exotic, highly invasive underwater vine known as "killer algae," has spread north to take over many deep Martin County coral reefs, scientists studying the algae said Wednesday."

"Torrential Rains Help Coral Environment in Qld's Far North" – March 5, 2007 (*Australian Broadcasting Corporation* on *www.abc.net.au*, Australia). "Recent torrential rain and monsoons in Far North Queensland have been welcome relief for farmers, and they've also been an added bonus for the Great Barrier Reef."

"20 New Sharks, Rays Discovered in Indonesia" – March 1, 2007 (*National Geographic News*, DC). "At least 20 new species of sharks and rays have been discovered in the waters off Indonesia, scientists announced this week."

"Call for Halt to Bakers Bay Development" – March 1, 2007 (*The Freeport News*, Grand Bahamas). "Goreau noted that the coral reefs at Guana Cay are ranked among the best in the Bahamas and contribute largely to the livelihood of many residents of Guana Cay. Goreau further explained that these reefs are especially vulnerable to any nutrients that may come into contact with them. Contamination could come from, for instance, fertilizers that would be used by the golf course or improperly treated sewage that may come from the housing units proposed for the site."

"Coral Bleaching: Probiotic Hypothesis to the Rescue!" – February 28, 2007 (*CO2 Science Magazine*, AZ). "The authors of an intriguing paper recently published in Environmental Microbiology (Reshef *et al*., 2006) develop a case for what they call the Coral Probiotic Hypothesis. This concept, in their words, 'posits that a dynamic relationship exists between symbiotic microorganisms and environmental conditions which brings about the selection of the most advantageous coral holobiont.'"

"UOG Forum Studies Coral Reef Diseases" – February 27, 2007 (*Kuam News*, GU). "The University of Guam's Marine Lab is hosting a workshop aimed to train more people to monitor local reefs."

"Underwater Researcher Tours Seas" – February 27, 2007 (*Daily Nexus*, CA). "…. 'The Red Sea is an important reef of the world to research because the reefs are very diverse, there are a number of species,' Gaines said. 'We want to understand why the coral reefs have been destroyed.'"

"Satellite Images Show Reef Being Polluted" – February 27, 2007 (*United Press International* on *www.sciencedaily.com*, MD). "Australian scientists have obtained the first visual confirmation of the theory that river sediment plumes travel to the Great Barrier Reef and beyond."

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UPCOMING EVENTS

If you have events you would like listed in future newsletters, please contact *coralreef@noaa.gov*.

April 2007
1: **NSTA National Conference.** St. Louis, MO.
http://www.nsta.org/conferencedetail&Meeting_Code=2007STL
16 – 20: **International Coastal Symposium 2007.** Gold Coast, Australia.
http://www.griffith.edu.au/conference/ics2007/
22 – 24: **ICRI General Meeting.** Tokyo, Japan.
http://www.icriforum.org/router.cfm?show=secretariat/japangm/icrigm_japan.html

May 2007
2 – 6: **Marine Benthic Habitats of the Pacific and Other Oceans (GeoHab 2007).** Noumea, New Caledonia. Contact Mary Power (Mary@sopac.org) for details.
13 – 17: **Coastal Sediments 07**. New Orleans, LA. http://www.asce.org/conferences/cs07/index.cfm
29 – 30: **Conference on Marine Ecosystem of Malaysia (COMEM 07): Interconnectivity in Marine Ecosystem: Opportunities and Challenges.** Port Dickson, Malaysia.
http://www.ocean.ukm.my/comem2007/

June 2007
13 – 17: **21st Pacific Science Congress.** Okinawa, Japan. www.psc21.net

July 2007
1 – 5: **Society for Conservation Biology, 21st Annual Meeting.** Port Elizabeth, South Africa.
http://www.nmmu.ac.za/scb/
22 – 26: **Coastal Zone '07.** Portland, OR. http://www.csc.noaa.gov/cz/index.html

Questions, comments?

Contact coralreef@noaa.gov, NOAA Coral Reef Conservation Program.

Access to NOAA's coral reef data and information is provided through NOAA's Coral Reef Information System. Current news on NOAA's coral reef activities can be found on the NOAA Coral Reef Conservation Program Website.