

CORAL REEF NEWS
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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://www.coralreef.noaa.gov>.

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OF SPECIAL NOTE

Coral Bleaching in the Florida Keys and Puerto Rico. On August 30, 2005, NOAA issued a press release (NOAA05-R483) announcing “Coral Bleaching Event Underway in Keys.” Subsequently, Hurricane Katrina blew through southern Florida, mixing waters in the Keys and dropping temperatures. While there was hope that this would stem the onset of bleaching, NOAA’s Coral Reef Watch nonetheless reported a Degree Heating Week value of 9.2 on September 10th for the Sombrero Reef index site, a new record high. On September 12th, the Florida Keys National Marine Sanctuary (FKNMS) reported that substantial bleaching had been observed in the vicinity of Sombrero Key at Looe Key, the middle Florida Keys, and Biscayne National Park. Extensive bleaching was reported at nearshore patch reefs off the Upper Keys and in Biscayne Bay. Moderate to high levels of bleaching were also observed at Looe Key, including ~80% mortality of *Acropora palmata* colonies that had recruited as fragments after Hurricane Georges (1998). Low to moderate bleaching was observed in the Upper Keys (Molasses Reef, White Bank Dry Rocks, the Triangle), including upper surfaces of *Acropora cervicornis* colonies. As the sun makes its annual progression southward, late summer warming is now underway in the U.S. Virgin Islands and Puerto Rico and both of these are now under bleaching warning status. Thus far, a large bleaching event has been reported for Vieques, Culebra, and the east coast of Puerto Rico, affecting over 23 coral species. Visit <http://coralreefwatch.noaa.gov/satellite/index.html> and http://www.coral.noaa.gov/seakeys/real_data.shtml for data on current bleaching conditions.

ANNOUNCEMENTS

Solicitation for FY 2006 Coral Reef Ecosystem Studies Proposals Re-opened. NOAA’s Center for Sponsored Coastal Ocean Research (CSCOR) announces the re-opening of the solicitation of proposals for the FY 2006 Coral Reef Ecosystem Studies (CRES) Program. This program was originally solicited in the Federal Register on June 30, 2005, as part of the June 2005 NOAA Omnibus solicitation. The original deadline for receipt of proposals was 3 p.m., EST, on September 1, 2005. Due to Hurricane Katrina, NOAA is re-opening the solicitation period. The new deadline for the receipt of proposals is 3 p.m., EST, on October 12, 2005, for both electronic and paper applications. Visit <http://www.cop.noaa.gov/opportunities/grants/fundingarchive/fy2006/cres06.html> for more details.

New CD Publication Available on Marine Debris Removal in the NWHI. The University of Hawai’i Sea Grant College Program and the NOAA Fisheries/Pacific Islands Fisheries Science Center/Coral Reef Ecosystem Division have produced *Marine Debris of the Northwestern Hawaiian Islands: Ghost Net Identification* in an effort to increase awareness of the Northwestern Hawaiian Islands (NWHI) derelict fishing gear problem. This 2-CD publication includes *Marine Debris of the NWHI: Ghost Net Identification Report* (disc 1) and *A Short Presentation on Marine Debris of the NWHI* (disc 2). Disc 1 summarizes removal locations, mechanisms for net accumulation, net impacts, and information on source fishery identification for 250 unique nets recovered in the NWHI. Disc 1 also provides a review of the highly successful, multi-agency marine debris removal program. Disc 2 contains a beautiful video slide show presentation illustrating the impacts of marine debris in the NWHI and the marine debris removal process from the perspective of divers. Contact Molly Timmers

(Molly.Timmers@noaa.gov) for a copy of the CDs.

The Proceedings of the International Workshop on CITES Implementation for Seahorse Conservation and Trade Are Now Available. This document summarizes the outcomes of a meeting held in Mexico in February 2004 that involved representatives from the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) Parties, the CITES Secretariat, fisheries agencies, NGOs, industry, academia and public aquariums from countries exporting and importing seahorses. The purpose of the workshop was to assist countries in identifying possible national management and monitoring strategies that could be implemented in their countries to promote sustainable harvest of seahorses and to properly implement the CITES Appendix-II listing for these species. The workshop discussed what should be included in a functional national management program, including how to enforce the CITES listing and how to make non-detriment findings as required to export these species. Copies of the *Proceedings* are available from Andy Bruckner (Andy.Bruckner@noaa.gov) as a hard copy or PDF.

AGRRA Releases Database and Summary Products for 1997-2003. Now available at <http://www.agrra.org/> is the Atlantic and Gulf Rapid Reef Assessment (AGRRA) Access database for 737 sites that were surveyed during 35 assessments conducted between 1997 and 2003 in the Caribbean, Gulf of Mexico, Florida and the Bahamas. Excel tables containing summary products derived from these data are also provided. AGRRA is the first and only program that has developed an extensive regional database on Caribbean coral reef condition. Hundreds of scientists and managers from many nations in the tropical Western Atlantic and Gulf of Mexico participated in this collaboration to determine

the regional condition of reefs. Before using the database or summary products, users are urged to consult the READ_ME file that is posted at the same site, entitled “AGRRA Database for 737 reef sites in the tropical western Atlantic.”

Sign Up for “Small Islands Voice” Global Forum. The NOAA National Ocean Service International Program Office would like to direct interested parties to the Small Islands Voice Global Forum. The goal of this Internet-based forum is to engage the general public in small islands in an online debate on issues relating to environment and development. Visit <http://www.unesco.org/csi/smisisiv/Forum/forum.htm> to sign up and learn more about Small Islands Voice.

UPDATES

Atlantic

NOAA Scientists Successfully Settle Lab-Cultured Coral Larvae in the Field Following Spawning Event in the Florida Keys. During this year’s spawning event in the Florida Keys, researchers from the Southeast Fisheries Science Center (SEFSC), in collaboration with colleagues from the University of Miami and University of North Carolina-Wilmington, gathered coral larvae samples in an attempt to settle them in the lab, and eventually at selected locations in the field. The team of researchers oversaw the culture and settlement of larvae of two species of broadcast-spawning hermatypic corals, elkhorn coral (*Acropora palmata*) and mountainous star coral (*Montastraea faveolata*). Despite hurricane interference for the second year in a row, about 600 new *A. palmata* corals were settled in the lab on reef rubble and will be returned to the reef. About 70,000 *M. faveolata* larvae were placed in field chambers to settle in situ. At least some of these larvae settled successfully on test substrates that could be

brought back to the lab for microscopic examination. This is the first time the SEFSC team has demonstrated successful field settlement of lab-cultured coral larvae. In concert with the spawning event, researchers also made substantial investment in outreach activities related to coral spawning and restoration research, including working with a film crew from Jean-Michel Cousteau's Ocean Futures Society (http://www.oceanfutures.org/press/2005/pr_08_01_05.asp) and making an appearance on NPR's Science Friday (http://www.sciencefriday.com/pages/2005/Aug/hour1_082605.html).

Coral Nursery Site Established at Western Sambos Ecological Reserve. Florida Keys National Marine Sanctuary staff recently assisted with establishing a coral nursery site at Western Sambos Ecological Reserve. The coral nursery, which consists of mounting space for over 150 coral fragments, will provide a place for storage of coral fragments that are too small to be used in immediate restoration. The coral fragments will be gathered from grounding sites and coral rescues, and will eventually be returned to restoration sites. Learn more about Western Sambos Ecological Reserve at http://www.fknms.nos.noaa.gov/research_monitoring/western_sambo.html.

Puerto Rico Protects Red Hind Spawning Aggregations. The Puerto Rico Department of Natural Resources recently published regulations prohibiting all fishing of red hind (*Epinephelus guttatus*) during their spawning season (December 1st to February 28th) around the entire shelf of Puerto Rico in jurisdictional waters. This management action, intended to reduce overfishing, was the direct result of hydroacoustic research on fish spawning aggregations that showed their widespread occurrence around the shelf. The research was initiated in 2002 by the NOAA Fisheries Southeast Fisheries Science Center with

funding by the NOAA CRCP. Closures apply to commercial and recreational fishing under Puerto Rico Fishing Regulations (Feb 10, 2004, No 6768), Article 8 – General Fishing Limits. All fishers and vendors should dispose of fish captured in jurisdictional waters before the start of the closed season. Importers of this species must demonstrate it by means of purchase receipts. View the Puerto Rico Fishing Regulations at http://www.drna.gobierno.pr/LeyesReglamentos/Reglamentos/Rgl6768_Eng.pdf.

Chemical Contamination and Health of Puerto Rican Coral Reefs Characterized.

The National Centers for Coastal Ocean Science (NCCOS), the University of Puerto Rico – Mayaguez, and the University of Hawai'i recently completed their second joint sampling mission in southwest Puerto Rico to assess and quantify the health of the region's coral reefs. The project goal is to link coral stressors to coral health by examining associations that may exist among chemical contamination, inshore and offshore biogeography and reef health, and land use patterns. Sediment samples will be analyzed for chemical contaminants, water samples will be analyzed for nutrients and Irgarol (biocide in boat bottom paints), and coral tissue samples will be analyzed to help assess coral biomarkers and the presence of coral pathogens. The study responds to a concern identified by NOAA's CRCP in its local action strategy for Puerto Rico, which cites pollution as one of the primary threats to coral reefs. The study area is co-located within a NCCOS Coral Reef Ecosystem Studies site, where NCCOS and its partners have completed a significant amount of work related to the biogeography of the reef tracts. Learn more about Puerto Rico's coral reef local action strategy at <http://www.coralreef.gov/las/index.html>.

Online Coral Reef Database to Assist Researchers and Managers in Caribbean.

Scientists from the National Centers for Coastal Ocean Sciences (NCCOS) Biogeography Program recently publicized an online database that serves ecosystem monitoring data gathered over the last five years from field studies in southwestern Puerto Rico and the U.S. Virgin Islands. Researchers, coastal managers, and interested members of the public can download the entire dataset, or can query the database to provide specialized reports on species biomass, richness, abundance, and diversity. In addition to the data products, a second querying function was developed to serve both fish and habitat photos that have been collected over time. These datasets are already being utilized by NCCOS partner agencies in the Caribbean region, including federal and territorial government agencies, universities and NGOs to improve management of these regions. By providing online access to the datasets they will be readily available to an even greater audience. You can access the database directly by navigating to http://biogeo.nos.noaa.gov/projects/reef_fish/ and clicking on "Reef Fish Database."

Gulf of Mexico Science Journal Highlights Flower Garden Banks National Marine Sanctuary.

A dedicated issue of the *Gulf of Mexico Science* journal (Vol. 23, No. 1, 2005) has been released, highlighting science in and around the Flower Garden Banks National Marine Sanctuary (FGBNMS). This is the second issue dedicated to the FGBNMS, the first being published in 1998. Eleven research papers are included in this issue, and address a wide variety of topics, including high-resolution bathymetry of the Flower Garden Banks region, sedimentary environments, decapod crustaceans, marine algae, coral spawning, coral health, black coral, and squid. Please contact Emma Hickerson (Emma.Hickerson@noaa.gov) for copies. For

information about the journal, see <http://goms.disl.org/>.

Pacific

Recommendation to Ban Harvest of Black Corals Spurred by Findings From CRCP Coral Reef Ecosystem Research Grants.

In May 2005, a science advisory group recommended a five-year ban on harvesting Hawai'i's black coral, a species prized by the jewelry trade. The recommendation was based on research funded through the CRCP coral reef ecosystem research grants program, administered by NOAA's Undersea Research Program. Led by Hawai'i's Department of Land and Natural Resources, researchers utilized advanced diving techniques to conduct approximately 46 deep-water dives in waters off the islands of Maui, Kauai, and Hawai'i. Data results, which indicated a decline in younger populations of the black coral, were presented to the Scientific and Statistical Committee, an advisory arm of the Western Pacific Regional Fishery Management Council. The data spurred the advisory group to recommend banning the harvest of black corals in both state and federal waters. The proposed ban, which has elicited a debate over future management of the black coral fishery, received attention in the May 22 issue of the *New York Times*:

<http://www.nytimes.com/2005/05/22/national/22hawaii.html?ex=1117857600&en=0dd0fa00caf06ae&ei=5070>.

Photographic Exhibit in the Northwestern Hawaiian Islands. The Northwestern Hawaiian Islands (NWHI) Coral Reef Ecosystem Reserve (Reserve) and the National Marine Sanctuary Foundation (NMSF) collaborated to bring a significant photographic exhibit to the NWHI from September 8th to 30th. The Honolulu Academy of Arts presented "Archipelago: Portraits of Life in the World's Most Remote Island Sanctuary," showcasing

photographic images of native flora and fauna, both terrestrial and marine, of the NWHI. Photographers Susan Middleton and David Liittschwager, whose work has focused on America's endangered animals and plants for almost 20 years, spent the last two years working in the NWHI. The exhibition was accompanied by their newly published book, *Archipelago*, which contains over 300 stunning images illustrating the diversity of the ocean and island creatures and which profiles the many people dedicated to preserving the special habitat. The book will be launched nationwide in early October. The Reserve and the NMSF were instrumental in securing major funding to produce this exhibit as well as to organize receptions at the Honolulu Academy of Arts and the Bishop Museum, which will subsequently present the exhibit from October 15th through December 18th. Reserve staff are finalizing bookings of community venues statewide to present the exhibit in 2006, as a way to bring the remote islands to the public and generate greater appreciation for this special place. Read more about *Archipelago* at <http://www.randomhouse.com/catalog/display.pperl?isbn=9780792241881>.

NOAA Co-hosts Pacific Islands Marine Protected Areas Community Workshop. Over fifty marine protected area (MPA) leaders from around the Pacific Islands met in Guam over four days to discuss their common strengths, challenges, and commitments to work together to build effective MPAs in the region. The workshop representatives, consisting of governmental and non-governmental representatives from the U.S. Pacific Islands, Freely Associated States of the Pacific, and Fiji developed a shared vision and regional plan of action for strengthening their individual and collective MPA efforts. The group also reached agreement that MPAs are vital tools for ensuring a sustainable future for the region's island cultures and economies, and made commitments to work together in an

evolving, regional Pacific Islands MPA Community. The workshop was organized by staff from the NOAA National MPA Center, the NOAA Office of Ocean and Coastal Resource Management/Coastal Programs Division, NOAA Fisheries Pacific Islands Regional Office, The Nature Conservancy, and the Community Conservation Network. The University of Guam Marine Lab co-hosted the workshop and funding was provided by the NOAA CRCP and Pacific Services Center. The plan of action and organization for the Pacific Islands MPA Community will be presented to the U.S. Coral Reef Task Force at their November meeting in Palau.

NOAA Collaborates With Local Resource Agencies in American Samoa.

Representatives from the NOAA Fisheries Pacific Islands Regional Office (PIRO) and the NOAA Office of Ocean and Coastal Resource Management (OCRM) recently traveled to American Samoa for two weeks of trainings and meetings. The first week was spent conducting extensive fisheries science and management training with all levels of staff in local resource agencies. The main purpose of the second week was to continue previous collaborative efforts between PIRO, OCRM and local American Samoa staff working on marine protected area (MPA) and fisheries management issues. Specifically, the second week consisted of (1) discussions of a 5-year plan for the MPA Program and Community Based Fisheries Management Program (CBFMP) in the Department of Marine and Wildlife Resource (DMWR), (2) meetings with the Overfishing Local Action Strategy (LAS) Group to discuss the development of their LAS, and (3) site visits with DMWR MPA and CBFMP staff to perform basic ecological assessments of the CBFMP villages. NOAA staff are providing a trip report to the agencies involved to provide a recap of discussions, recommendations for the 5-year plans for the MPA Program and CBFMP in DMWR, future

training needs, and ecological reports from the village site visits including photos of habitats and key species.

New GIS Product for Park Managers in American Samoa. The Coral Reef Ecosystem Division of NOAA Fisheries/Pacific Islands Fisheries Science Center has created an integrated ArcGIS product for managers in the National Park of American Samoa. The GIS project incorporates multibeam bathymetry and backscatter imagery, hyperlinked underwater towboard photos and video frame grabs, benthic characterizations from towboard surveys, and conductivity, temperature and depth (CTD) sampling sites. These data will be a resource to help National Park managers understand and characterize the reef zone adjacent to the Ofu airport as plans are made for extension of the runway. Learn more about the National Park of American Samoa at <http://www.nps.gov/npsa/home.htm>.

International

NOAA and the University of Queensland, Australia, Sign Memorandum of Understanding to Collaborate on the Coral Reef Watch Project. In August 2005, NOAA and the University of Queensland (UQ) signed a Memorandum of Understanding (MOU) to expand collaboration on NOAA's Coral Reef Watch Project. NOAA will cooperate with UQ to develop models and algorithms that will utilize *in situ* and satellite data from the NOAA Polar-orbiting and Geostationary Operation Environmental Satellites. Outcomes of the collaboration will include regular communication between NOAA and UQ regarding coral reef health, validation and calibration of satellite algorithms, support of environmental alerts (e.g. coral bleaching), thermal sensitivity and hydrodynamic modeling for reefs, predictions of climate change effects on coral reef health, and regional collaborations. The MOU was signed by David

Kennedy, Manager of the NOAA CRCP, and Dr. David Siddle, Deputy Vice-Chancellor of Research at UQ. Learn more about Coral Reef Watch at <http://coralreefwatch.noaa.gov/>.

Coral Reef Watch Scientists Meet with Australian Colleagues to Plan Collaborative Research. Scientists with NOAA's Coral Reef Watch (CRW) met with researchers from the University of Queensland, James Cook University, the Australian Institute of Marine Science (AIMS), the Great Barrier Reef Marine Park Authority (GBRMPA), and Queensland Science and Engineering Consultants (QSEC) to plan joint research under funding recently approved by the Australian Research Council (ARC). The University of Queensland (UQ) was recently awarded an ARC Linkage Grant of \$AUD 1.175M over 5 years for coral reef research aimed at better understanding coral reef bleaching as it relates to environmental stress. Linkage grants require industry partner funding, which in this case includes NOAA funding that supports work at QSEC and a small contribution from GBRMPA. Work will be conducted under a Memorandum of Understanding (see previous news item) that was recently signed between NOAA and UQ. Research will include mesocosm experiments of coral bleaching, modeling of physical oceanography and hydrodynamics, studies of within-reef variability in bleaching patterns, and improvement of the Coral Reef Watch bleaching products (NOAA's Coral Bleaching HotSpots and Degree Heating Weeks). While in Australia, the CRW scientists also met with scientists and officials at AIMS and GBRMPA. They also attended a celebration honoring the 30th anniversary of GBRMPA where they met with Senator the Hon. Ian Campbell, Minister for the Environment and Heritage. View the details of the ARC Linkage Grant on page 15 of the following document (#2604): http://www.arc.gov.au/pdf/LP05_Rd2_listing_RFCD.pdf.

New Web Page for IUCN Task Force on Island Conservation and Protected Areas. A new web-page has been created providing information on the World Conservation Union (IUCN) World Commission on Protected Areas (WCPA) Task Force on Island Conservation and Protected Areas. The web-page has been constructed – and will be maintained – with the help of Fundacion Natura, the largest Ecuadorian Environmental NGO. Visit the web-page at <http://www.fnatura.org/paginas/textos.php?id=212&val=30>.

National/Headquarters

NOAA's IRCP Transfers Histology Techniques to Coral Disease Researchers.

From August 8-12, NOAA's International Registry of Coral Pathology (IRCP) hosted a Coral Histotechniques Workshop at the Cooperative Oxford Laboratory in Oxford, MD, to facilitate the application of histology techniques to coral disease investigations. Histology is a key component of human and animal disease diagnostics yet has often been omitted from coral disease studies. The examination of microscopic anatomy provides important insights into disease mechanisms that will enhance development of multidisciplinary approaches to managing and understanding coral reef ecosystems. Workshop participants included IRCP collaborators from Florida International University, Nova University, the University of Puerto Rico, and the Omaha Zoo. *A Coral Histology Techniques Manual* prepared by IRCP for the workshop is being finalized for publication and will be made available to the coral research community. The workshop was sponsored by NOAA's CRCP and IRCP.

Marine Education Journal Dedicated to Deep-Sea Corals. The current issue of *CURRENT: The Journal of Marine Education* (21:4), is devoted entirely to deep-sea corals.

Though the Marine Conservation Biology Institute (MCBI) was the driving force behind this special publication, NOAA scientists contributed several of the articles. The publication is an introduction to the issues and concerns surrounding deep corals. It highlights recent research, exploration and discoveries from both the US and Europe; the possible uses of deep-sea corals outside of their role in ecosystem dynamics, such as storehouses of biomedical benefits or recorders of past climate change; threats to deep-sea coral survival such as bottom trawling on seamounts and climate change; and conservation measures to safeguard what is only beginning to be discovered. The issue is available to the general public, and copies may be purchased by contacting Johnette.bosarge@usm.edu. For more information on *CURRENT* or the National Marine Educators Association go to <http://www.marine-ed.org>.

Recent Data Addition to CoRIS. The Perry Institute of Marine Science, Caribbean Marine Research Center, recently contributed ocean temperature data to the NOAA Coral Reef Information System (CoRIS). The hourly data were collected between 1988 and 2002 from 15 sites around Lee Stocking Island, Exuma, Bahamas. Sensor depths vary from 3 meters to 212 meters at various locations. Data will be available from CoRIS soon and will be preserved in the archive. Discover NOAA's coral reef data at <http://www.coris.noaa.gov/data/welcome.html>.

CoRIS Illustrated Glossary Continues to Grow. The Coral Reef Information System (CoRIS) Glossary of Scientific and Technical Terminology will soon be augmented by an additional 300 terms and illustrative materials. Visit the CoRIS glossary at <http://www.coris.noaa.gov/glossary/welcome.html>.

CORAL REEFS IN THE NEWS

Articles mentioning NOAA

“Fire forces research vessel to return home” – September 1, 2005 (*Honolulu Star-Bulletin*). “The government research ship Hi’ialakai is returning to Honolulu for repair to an engine, cutting short a 35-day voyage to the Northwestern Hawaiian Islands.”
<http://starbulletin.com/2005/09/01/news/story8.html>

“Warm waters bleaching reefs” – September 5, 2005 (*The Miami Herald*). “The vibrant colors of Florida Keys reefs have begun to fade in recent weeks, a sign scientists hope doesn’t erupt into serious coral bleaching.”
<http://www.miami.com/mld/miamiherald/12563580.htm>

“Warm ocean waters are bleaching coral reefs in the Florida Keys” – September 6, 2005 (*The Associated Press in The Sarasota Herald-Tribune* and approx. 4 other outlets). “Warm ocean waters are bleaching the rainbow colors of coral reefs in the Florida Keys, scientists said.”
<http://www.heraldtribune.com/apps/pbcs.dll/article?AID=/20050905/BREAKING/50905002>

“New Coral Reef Study Off Florida Coast To Address Bleaching” – September 5, 2005 (*The Associated Press in The Bradenton Herald* and approx. 50 other outlets). “Hovering above a coral reef, two divers in wet suits examine and measure the dozens of coral beneath them, recording their findings on clipboards and waterproof paper.”
http://www.bradenton.com/mld/bradenton/news/breaking_news/12566436.htm

“OSU researchers develop software to study ocean biology” – September 9, 2005 (*OSU News Service in the Corvallis Gazette Times, OR, and approx. 20 other outlets*).

“Researchers at Oregon State University have created a ‘benthic terrain modeler,’ software that can be used with a geographic information system to provide a significant new way of describing the ocean sea floor and the fish and other marine species that probably live there.”
<http://www.gazettetimes.com/articles/2005/09/09/news/community/friloc05.txt>

“Scientists dive into lab work to help coral reefs: Studying their reproduction may help restore their waning numbers” – September 10, 2005 (*St. Petersburg Times in The Houston Chronicle*). “Last year, in the third week in August, a band of researchers armed with nets and buckets jumped into the warm water to capture millions of baby coral.”
<http://www.chron.com/cs/CDA/ssistory.mpl/nation/3347687>

“Storm runoff pokes south into the gulf” – September 15, 2005 (*St. Petersburg Times*). “Scientists begin taking samples to study whether fishing grounds remain safe as a toxic brew flows farther.”
http://www.sptimes.com/2005/09/15/State/Storm_runoff_pokes_so.shtml

“Scientist Explores Sea Mounts: Links between coral larvae and depleted fish stocks investigated” – September 16, 2005 (*Shore Publishing, CT*). “‘The main goal of this mission was to explore underwater sea mounts that have largely never been explored before,’ Les Watling, a benthic ecologist from the University of Maine, explained. ‘We want to know how these mountains operate as habitats for deep sea fish and corals.’”
<http://www.shorepublishing.com/archive/re.aspx?re=8259a4da-d777-4b0a-9e96-bb63ef6c46be>

“Some afraid water from New Orleans will damage Gulf” – September 18, 2005 (*Naples Daily News*). “...At the Dry Tortugas, a cluster of islands west of Key West, dark water will harm already stressed coral reefs by robbing

them of life-sustaining light, said Brian Keller, science coordinator at the Florida Keys National Marine Sanctuary, which takes in the Tortugas.”

http://www.naplesnews.com/npdn/news/article/0,2071,NPDN_14940_4089511,00.html (Free registration required)

“Coral’s discovery may yield 300 years of data” – September 20, 2005 (*South Florida Sun-Sentinel*). “A huge cone of ancient coral has been discovered in the waters off Hollywood, offering scientists an unusual opportunity to learn about global warming, sewage pollution and the decline of the Everglades.” <http://www.sun-sentinel.com/news/local/palmbeach/sfl-pccoralsep20,0,3105881.story?coll=sfla-news-palm>

“Plume endangers Florida coast” – September 23, 2005 (*Florida Today*). “...[O]ceanographers won't know for a few days, when clouds dissipate enough for clear satellite shots -- whether Hurricane Rita swept the plume far enough west to spare fish, coral and other marine life off Florida's coast.” <http://www.floridatoday.com/apps/pbcs.dll/article?AID=/20050924/NEWS04/509240319/1006>

“New kiosks will teach visitors about rich marine life in Tumon Bay” – September 26, 2005 (*KUAM.com, Guam*). “The Guam Visitors Bureau has signed a memorandum of understanding with the Guam Coastal Management Program after receiving an \$80,000 grant from the National Oceanic and Atmospheric Administration. The MOU is to develop a comprehensive public outreach campaign for both visitors and local residents to protect the Tumon Bay Marine Preserve.” <http://www.kuam.com/news/15150.aspx>

Other articles

“Lingering Red Tide bloom takes toll on Gulf sea life” – September 3, 2005 (*The Associated Press in The Bradenton Herald and approx. 8 other outlets*)

“...Most anybody who's spent time at southwest Florida beaches knows about Red Tide...But the massive Red Tide bloom that has plagued coastal waters this year from Honeymoon Island north of Clearwater to south of Sarasota has been extra toxic and deadly to sea life, scientists say, the worst in more than 30 years.”

http://www.bradenton.com/mld/bradenton/news/breaking_news/12554203.htm

“SOS call for Ireland’s deep coral” – September 4, 2005 (*BBC News*). “Spectacular deep-water corals off the south-west coast of Ireland are in urgent need of protection, a conference in Dublin will hear on Monday.” <http://news.bbc.co.uk/2/hi/science/nature/4213592.stm>

“Blast fishing rampant in Lingayen” – September 4, 2005 (*Manila Bulletin, Philippines*). “Illegal fishing, particularly the use of dynamites and improvised blasting materials, along the Lingayen Gulf is rampant and authorities are having hard time catching the culprits because of lack of equipments.” <http://www.mb.com.ph/PROV2005090543580.html>

“Irish coral reefs bulldozed by deep-sea trawlers” – September 5, 2005 (*Reuters, UK*). “Deep-sea fishing trawlers are bulldozing 4,500 year-old cold water coral reefs off western Ireland, a British marine biologist said on Monday.” http://today.reuters.co.uk/news/newsArticle.aspx?type=worldNews&storyID=2005-09-04T231722Z_01_ROB483829_RTRUKOC_0_UK-ENVIRONMENT-IRELAND.xml

“Footage reveals threat to stunning Irish corals” – September 5, 2005 (*New Scientist*, UK). “Researchers have released the first ever video footage of spectacular cold-water, deep-ocean coral reefs, found off the coast of Ireland, in a bid to convince the Irish government that the ancient reefs need protection.”

<http://www.newscientist.com/article.ns?id=dn7947>

“Global lessons learned from Katrina” – September 5, 2005 (*World Peace Herald*, DC). “...It's clear the coastline of the Gulf of Mexico -- like many others in tropical areas -- has been damaged by urban development, tourism development and other economic projects that don't maintain the natural ecosystems like coral reefs and mangrove swamps that are essential to reduce the impact of these natural hazards. As you know, the mangroves and coral reefs in particular perform a very important buffer function in the face of natural hazards.”

<http://www.wpherald.com/storyview.php?StoryID=20050905-042249-4755r>

“Cabinet approves Keys sewer plan” – September 7, 2005 (*The Associated Press in The Bradenton Herald* and approx. 5 other outlets). “Monroe County and its water district will work together to meet a legislative requirement to sewer the Florida Keys by 2010.”

<http://www.bradenton.com/mld/bradenton/news/local/12582201.htm>

“Run-off damages reefs, researcher” – September 8, 2005 (*ABC Online*, Australia). “A marine researcher says comparative studies have shown sediment and nutrient run-off are seriously affecting coral diversity on the wet tropics inshore reefs.”

<http://www.abc.net.au/news/newsitems/200509/s1455670.htm>

“Surfers make some waves, ask public to support clean water” – September 11, 2005 (*South Florida Sun-Sentinel*). “Divers said it was ‘disgusting’ to see what was happening to the reefs. An outbreak of red algae near the Delray Beach underwater sewage pipe is killing coral species and crippling the underwater habitat, Reef Rescue officials said.”

<http://www.sun-sentinel.com/news/local/palmbeach/sfl-ppaddle11sep11,0,2704560.story?coll=sfla-news-palm>

“Hidden Sponges Determine Coral Reef's Nutrient Cycle” – September 17, 2005 (*Science Daily*). “Marine organisms hidden in caves, such as sponges, play an extremely important role in the nutrient cycle of coral reefs. Indeed they probably play the most important role of all, says Dutch biologist Sander Scheffers.”

<http://www.sciencedaily.com/releases/2005/09/050917085649.htm>

“Coral skeletons record pollution of the past” – September 19, 2005 (*Practical Fishkeeping*). “The skeletal material of hard corals records past pollution events according to a new study.”

<http://www.practicalfishkeeping.co.uk/pfk/pages/item.php?news=728>

“Coral Reef Fish Larvae Settle Close To Home” – September 19, 2005 (*Science Daily*). “...In a new study, researchers have managed to uncover the patterns of local dispersion for a small coral reef fish species by employing a combination of inventive tracking techniques.”

<http://www.sciencedaily.com/releases/2005/09/050917090501.htm>

“Unsettled Waters: White Silt Plumes Raise Questions About Dredging Projects” – September 19, 2005 (*The Miami Herald*).

“Dredging at the Port of Miami-Dade has stirred up controversy in the form of milk-

colored plumes that on bad days have wafted all the way from nearby sea grass beds in Biscayne Bay to shallow reefs outside Government Cut.”

<http://www.miami.com/mld/miamiherald/12685404.htm>

“EU Bans Canary and Azores Trawling to Save Coral Reefs” – Septber 20, 2005 (*Reuters in Planet Ark*, NY). “EU fisheries ministers agreed on Tuesday to ban the controversial practice of trawling the sea bed around Madeira, the Azores and Canary Islands to save their unique coral reefs from destruction, officials said.”

<http://www.planetark.com/dailynewsstory.cfm/newsid/32591/story.htm>

“UVI conference stimulates student interest in coral reef conditions and climate change” – September 24, 2005 (*The Virgin Islands Daily News*). “...According to UVI professor Roy Watlington, the research done through VI-EPSCoR can help spread awareness of coral reef conditions, climate changes and other environmental issues.”

http://www.virginislandsdailynews.com/index.pl/article_home?id=8661124

“Nonindigenous ‘snowflake’ variety a threat to offshore Black Coral” – September 26, 2005 (*The Maui News*). “Even when they’re 250 to 300 feet deep, well out of the reach of most humans, Hawaii’s black coral can be victimized by human activity, a new scientific study has found.”

<http://www.mauinews.com/story.aspx?id=12787>

“Red tide threatening tourism in SW Florida” – September 28, 2005 (*Associated Press in the South Florida Sun-Sentinel*).

“...Fish, sand dollars, sponges, crabs, coral and other undersea life suffocated as the red tide -- this strain is called *Karenia brevis* -- choked off the oxygen in the water.” <http://www.sun-sentinel.com/news/local/florida/sfl-fredtide28sep28,0,7331182.story?coll=sfla-news-florida>

UPCOMING EVENTS

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

October 2005

16 – 21: **24th International Submerged Lands Management Conference**. St. John, USVI.

<http://www.islc2005.org/>

18 – 19: **Conference on Coral Reef Restoration: Scientific Frameworks for Rehabilitation**. Miami, FL. http://www.tfilearning.com/tfi/c/portal_public/layout?p_1_id=27.26

23 – 28: **The First International Congress on Marine Protected Areas**. Geelong, Australia.

www.impacongress.org

31 – Nov. 2: **Sustainable Beaches Conference 2005**. St. Petersburg, FL.

<http://www.cleanbeaches.org/events/summit/2005/>

31 – Nov. 2: **International Coral Reef Initiative General Meeting**. Koror, Palau.

<http://www.icriforum.org/secretariat.html>

November 2005

4 – 7: **14th U.S. Coral Reef Task Force Meeting**. Koror, Palau.

<http://www.coralreef.gov/meetings/announcements.html>

7 – 11: **Gulf and Caribbean Fisheries Institute Conference**. Note sessions relating to coral reef ecosystems (e.g. spawning aggregations, marine protected areas, etc.). San Andres Island, Colombia.

<http://www.gcfi.org/Conferences/58th/SanAndres58.htm>

28 – 30: **9th Virgin Islands Nonpoint Source Pollution Conference**. St. John, USVI.

<http://usvircd.org/NPS/VINPScnf2005.index.html>

28 – Dec. 2: **Third International Symposium on Deep-Sea Corals**. Miami, FL.

<http://www.conference.ifas.ufl.edu/coral>

February 2006

20 – 24: **13th Ocean Sciences Meeting**. Honolulu, HI. <http://www.agu.org/meetings/os06/>

March 2006

1 – 2: **15th U.S. Coral Reef Task Force Meeting**. Dates tentative.

<http://www.coralreef.gov/meetings/announcements.html>

6 – 10: **World Maritime Technology Conference**. London, England. Note Technical Programme on Reefs of the World. <http://www.wmtc2006.com/technical/rw/>

April 2006

19 – 21: **First International Symposium on Mangroves as Fish Habitat**. Miami, FL.

<http://www.rsmas.miami.edu/conference/mangrove-fish-habitat/>

May 2006

14 – 17: **The Coastal Society 20th Biennial Conference, Charting a New Course: Shaping Solutions for the Coast**. St. Pete Beach, FL. <http://www.thecoastalsociety.org/conference/tcs20/>

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 at <http://www.coris.noaa.gov>. Current news on NOAA's coral reef activities can be found on the NOAA Coral Reef Conservation Program Web site, <http://www.coralreef.noaa.gov>.

