

**CORAL REEF NEWS**  
Coral Reef Conservation Program  
National Oceanic and Atmospheric Administration  
April 2006 Volume 3 No. 7



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>.

**IN THIS ISSUE:**

**OF SPECIAL NOTE (PAGE 2)**

- **Seafloor Characterization of the Buck Island Reef National Monument and Puerto Rico.**
- **Teaching the Nation's Teachers: NOAA-NSTA Partnership Features CRCP at Annual Convention.**

**ANNOUNCEMENTS (PAGE 3)**

- **National Geographic 'Archipelago' Exhibit in D.C. Through May.**
- **'Protecting Corals, Saving Ships' Project Featured on NOS Web Site.**
- **NOAA Fisheries Service Plans Public Information Gathering Workshops for Conservation of Elkhorn and Staghorn Corals.**
- **Coral Reef Remote Sensing Curriculum Acclaimed by National Education Organization.**
- **Coral Reef Watch Launches New Gridded Data Product Suite.**
- **Digital Version of the Guam and Northern Mariana Islands Environmental Sensitivity Data Now Available.**
- **SEFSC Announces New Publication.**

**UPDATES (PAGE 5)**

*Atlantic*

- **SEFSC Completes Monitoring Cruise for Project Studying Coral Reef Fish Utilization of MPAs.**
- **Mangroves as Fish Habitat Symposium Held in Florida.**

*Pacific*

- **Ecosystem Level Research Informs Local Coral Reef Management Strategies.**

*International*

- **CRES Micronesia Program Transitions Efforts from Research to Application.**

*National/Headquarters*

- **Coral Reef Watch Scientist Speaks on Caribbean Bleaching at Climate Policy Center.**
- **Coral Reef Watch Products Made News in the Google Earth Community.**
- **Recent Additions to CoRIS.**

**CORAL REEFS IN THE NEWS (PAGE 7)**

**UPCOMING EVENTS (PAGE 15)**



## OF SPECIAL NOTE

### **Seafloor Characterization of the Buck Island Reef National Monument and Puerto Rico.**

NOAA and the National Park Service (NPS) completed the third scientific research mission on board the NOAA ship *Nancy Foster* on April 2 for the regions of Buck Island Reef National Monument in the U.S. Virgin Islands (USVI) and La Parguera in the southwestern portion of Puerto Rico. The science team was comprised of hydrographers, oceanographers, marine resource specialists, and Remotely Operated Vehicle (ROV) technicians from NOAA, the private sector, and the governments of USVI and Puerto Rico. Data collected during the research cruise includes the collection of 143.3 km<sup>2</sup> of multibeam coverage from 14.7 m water depth to 1000.10 m. Total ROV data for the mission included 22 linear km of video transects from 20 to 830 m water depth. A wide diversity of habitat types were characterized from this data. Seafloor features included rock precipices, ledges, limestone caves, boulders, rock outcroppings, flat mud, wide (>1 km) deep channels in mud and thin (< 1 m) shallow channels in mud. The biota below 200 m, never visually characterized before, included *Lophelia* coral, black coral sea whips, feather stars, sea pens, sea anemones, starfish, brittlestars, urchins, sponges, isopods, sea cucumbers, lobsters, shrimps, crabs, conch, orange roughys, roundnose grenadiers, tripod fish and several types of snappers. Data from the mission will help NOAA meet its commitment to the U.S. Coral Reef Task Force to map moderate depth coral reef ecosystems; it will also provide new information to update nautical charts covering the U.S. Virgin Islands. To view photos from this mission or read daily Web casts from the *Nancy Foster*, visit: [http://ccma.nos.noaa.gov/products/biogeography/usvi\\_nps\\_2006/](http://ccma.nos.noaa.gov/products/biogeography/usvi_nps_2006/). Finished data products will be available from this site in the near future.

### **Teaching the Nation's Teachers: NOAA-NSTA Partnership Features CRCP at Annual Convention.**

NOAA CRCP educators and scientists have been working with the National Science Teachers Association (NSTA) to develop a suite of on-line education and professional development resources for teachers wanting to explore coral reef ecosystem science in their classrooms. On April 7, NOAA's CRCP presented a half-day symposium on coral reef science to almost 80 teachers at the annual NSTA convention. The NSTA/NOAA 'Coral Ecosystems' Symposium, which featured NOAA scientists and educators from the CRCP, National Marine Sanctuary Program (NMS), Coral Reef Watch (CRW) and National Ocean Service (NOS), was the first in a series of coral reef teaching and professional development resources developed by NSTA in partnership with NOAA. Kelly Drinnen, Education Specialist for the Flower Garden Banks National Marine Sanctuary in Texas, and Patty Miller, education coordinator for the Hawaiian Islands Humpback Whale National Marine Sanctuary, facilitated several hands-on activities that taught the participants about coral reef ecology. Dr. Mark Eakin, NOAA Coral Reef Watch Coordinator, gave two lectures: one on general coral reef ecology and coral bleaching; and one on satellites, their use in observing coral reefs, and the 2005 Caribbean bleaching event. Dr. Eakin also led an activity in which the teachers investigated the 2005 Caribbean bleaching event using Coral Reef Watch and CoastWatch satellite data. In conjunction with the 'Coral Ecosystems' Symposium, NSTA will release the on-line teacher Coral Reef Ecosystem Sci-Guide, a standards-based, teacher-reviewed compilation of information for teaching coral reef science. Once released, the Sci-Guide will be available on <http://sciguides.nsta.org/default.aspx>. A preview of this SciGuide served as the conclusion of the symposium. Bruce Moravchik, education specialist in NOAA's NOS, helped field questions on the SciGuide, its purpose, and its upcoming

release. The symposium will continue with two online sessions, one each in May and June. A 'Coral Ecosystems Symposium' overview, photo gallery, speaker biographies and information about the upcoming Web seminars are available at: [http://institute.nsta.org/Anaheim/coral/symposium\\_post.asp](http://institute.nsta.org/Anaheim/coral/symposium_post.asp). While at NSTA, the CRCP also participated in the National Marine Educators Association Share-a-Thon and presented the talk, 'Coral Reefs: Integrative Teaching Tool (and Guide to NOAA Resources),' to over 80 educators introducing NOAA's coral reef teaching materials.

## ANNOUNCEMENTS

**National Geographic 'Archipelago' Exhibit in D.C. Through May.** The 'Archipelago: Portraits of Life in the Northwestern Hawaiian Islands' exhibit, based upon photographs from the book by the same name, will be at the National Geographic Explorer's Hall until May 29<sup>th</sup>. Photographers David Liittschwager and Susan Middleton sought to bring the wildlife of the Northwestern Hawaiian Islands to the public in a series of close ups that are presented in both the book and exhibit. Informational panels discuss the photographers' techniques as well as the wildlife, environmental threats, and conservation of the Northwestern Hawaiian Islands. A similar exhibit is currently on display in Honolulu, Hawai'i. Throughout 2006, both exhibitions will travel to venues around the country. For more information, directions, or hours, visit: <http://www.nationalgeographic.com/museum/exhibitions/archipelago.html>.

**'Protecting Corals, Saving Ships' Project Featured on NOS Web Site.** "By displaying the location of coral reefs along with the electronic navigational charts that are being increasingly used by mariners, NOAA's Office of Coast Survey Protecting Corals, Saving Ships project will soon provide an improved means to protect delicate coral reef ecosystems from physical

destruction and pollution caused by passing ships." The 'Protecting Corals, Saving Ships' project, funded by the CRCP, was the April 2006 news feature on the NOAA National Ocean Service (NOS) Web site. In addition to the description provided above, the article provides statistics regarding the problem the project aims to remediate, outlines the project in basic terms and shows an additional application of nautical chart data. The article also highlights the activities of multiple NOS offices. Read the full article at: [http://oceanservice.noaa.gov/news/features/supp\\_apr06.html](http://oceanservice.noaa.gov/news/features/supp_apr06.html).

**NOAA Fisheries Service Plans Public Information Gathering Workshops for Conservation of Elkhorn and Staghorn Corals.** Last spring, NOAA Fisheries Service (NMFS) published a proposed rule to list elkhorn (*Acropora palmata*) and staghorn (*Acropora cervicornis*) corals as threatened under the Endangered Species Act (ESA). Pending a final determination on this rule, NMFS is sponsoring stakeholder input workshops throughout South Florida, the Florida Keys, Puerto Rico, and the U.S. Virgin Islands to collect information concerning the conservation of the species. These workshops are meant to be constructive brainstorming sessions during which NMFS will gather as much information as possible about activities and programs that involve interaction with elkhorn and staghorn corals. Additionally, NMFS seeks information relevant to the designation of critical habitat for the species. The information gathered during all seven of the workshops will be considered in the development of any future conservation measures. These workshops are open to the public and all are invited to attend and participate. The full workshop announcement and additional information on the proposed rule to list *Acropora* spp. are available on the NMFS Southeast

Regional Office Protected Resources Division  
website: <http://sero.nmfs.noaa.gov/pr/protres.htm> .  
The workshop dates are also listed in the  
'Upcoming Events' section of this issue.

### **Coral Reef Remote Sensing Curriculum Acclaimed by National Education**

**Organization.** In early March 2006, NOAA's CRCP and Coral Reef Watch (CRW) released a new curriculum on coral reefs and remote sensing for grades 4-6. Less than a month later, the Bridge has rated the curriculum a 'Teachers' Top Web Pick,' featuring the curriculum on its homepage at <http://www.marine-ed.org/bridge/> . The Bridge, an online Ocean Sciences Education Center sponsored by Sea Grant, the National Oceanographic Partnership Program (NOPP), and the National Marine Educators Association (NMEA), regularly reviews online teacher resources through its Teacher Reviewer of On-Line Learning (TROLL) program. The Bridge has further highlighted NOAA's coral reef remote sensing work by creating its own student data activity on the 2005 Caribbean bleaching event. The activity features online data from multiple partners in NOAA's CRCP, including CRW, the Atmospheric and Oceanographic Meteorology Lab (AOML), and the Coral Reef Information System (CoRIS).

**CRW Launches New Gridded Data Product Suite.** The operational suite of Coral Reef Watch (CRW) data products is now available in two flexible new formats: Hierarchical Data Format (HDF) and Google Earth™. HDF presents the information as a data grid with imbedded metadata. This standard raw data format can be used in many different software applications, including the NOAA CoastWatch Data Analysis Tool (CDAT) which is specifically customized for the CRW data. Among other tools, users can zoom from global coverage down to individual pixels, customize the data display, and turn overlays on and off. The HDF files and software are available for download at

<http://coralreefwatch.noaa.gov/satellite/hdf/>.

Another easy new way to use the CRW data exists in conjunction with Google Earth™. Once users have installed the free Google Earth™ software, they can access the latest CRW monitoring data overlaid on the globe. It is an excellent visualization tool that helps bring CRW data alive. To access the CRW data in this format, please visit <http://coralreefwatch.noaa.gov/satellite/ge/>. For more information on the entire suite of NOAA Coral Reef Watch satellite products, see <http://coralreefwatch.noaa.gov/>

**Digital Version of the Guam and Northern Mariana Islands Environmental Sensitivity Data Now Available.** Environmental Sensitivity Index (ESI) maps employ a standardized scale to categorize shoreline and coastal habitats based on susceptibility to spilled oil. In conjunction with the biological and human-use resources that are also mapped, ESIs are useful for identifying protection priorities in oil spill planning and response. Their comprehensive content also makes them useful to coastal managers and local planners in a context much broader than spill response. A CD containing the Guam and Commonwealth of Northern Mariana Islands (CNMI) ESI data was released on March 31<sup>st</sup> . The CD contains 27 ESI maps in Portable Document Format (PDF), as well as in multiple Geographic Information System (GIS) formats. The ESI data includes the digital data in a geodatabase format for use in ArcGIS 9.X. A number of tools designed to ease the use of these data in ArcGIS are provided on the CD. Both the printed maps and CD of this data are available for order on the Office of Response and Restoration (OR&R) web site (<http://response.restoration.noaa.gov/orderesi> ).

**SEFSC Announces New Publication.** The article, entitled 'A review of catch-and-release angling mortality with implications for no-take reserves', was published in the 15<sup>th</sup> issue of *Rev. Fish Biology and Fisheries*, pp. 129-154. The review describes U.S. trends in catch-and-release fishing in relation to the practice's use in management of aquatic protected areas, provides a meta-analysis of factors shown to affect release mortality, and provides a review of the current literature. Please find the full citation and abstract at:

<http://www.springerlink.com/openurl.asp?genre=article&eissn=1573-5184&volume=15&issue=1&spage=129>.

The full text is available for download to journal subscribers; others interested in accessing the full text should contact Jim Bohnsack ([Jim.Bohnsack@noaa.gov](mailto:Jim.Bohnsack@noaa.gov)) for reprints.

## UPDATES

### *Atlantic*

**SEFSC Completes Monitoring Cruise for Project Studying Coral Reef Fish Utilization of MPAs.** The spring field work for the South East Fisheries Science Center (SEFSC) project entitled 'Monitoring Coral Reef Fish Utilization of MPAs and Recruitment Connectivity Between the Florida Keys and Meso-American Reefs' was completed during the first week of April. A joint research effort exploring larval recruitment and long distance larval transport incorporates researchers at the Mexican university, El Colegio de La Frontera Sur (ECOSUR), sampling MPA sites along the Yucatan coast while SEFSC focuses on the Dry Tortugas and Florida Keys. On this cruise, scientists completed sampling of 50 ichthyoplankton Multiple Opening Closing Net Environmental Sensing System (MOCNESS) stations and 54 Conductivity (salinity), Temperature, and Depth (CTD) stations. Most of the stations were at a depth of 1000-2000 meters.

The cruise concluded with three deep tows to 1000 meters at the request of ECOSUR. In addition, shipboard Acoustic Doppler Current Profiler (ADCP) data for the surface were plotted and analyzed.

### **Mangroves as Fish Habitat Symposium Held in Florida.**

The First International Symposium on Mangroves as Fish Habitat was held from April 19-21 at the University of Miami's Rosenstiel School of Marine and Atmospheric Science (RSMAS) in Virginia Key, Florida. NOAA's CRCP and Southeast Fisheries Science Center (SEFSC) were among the nine sponsors of this event, which also included the host, RSMAS. The purpose of the Symposium was three-fold: 1. To characterize the present state-of-knowledge, identifying critical information gaps, and charting a course for future research; 2. To gauge, and ultimately advance, the current understanding of fish utilization of mangrove habitats and their importance in the systems that they occupy; and 3. To publish submitted papers on this topic in a special issue of the peer-reviewed *Bulletin of Marine Science*. The Symposium agenda included three keynote speakers, 53 oral presentations, and 27 posters that were presented to approximately 200 pre-registered attendees. Please see <http://www.rsmas.miami.edu/conference/mangrove-fish-habitat/> and the next issue of *NOAA Coral Reef News* for more information.

### *Pacific*

**Ecosystem Level Research Informs Local Coral Reef Management Strategies.** The National Centers for Coastal Ocean Science (NCCOS) Center for Sponsored Coastal Ocean Research (CSCOR) completed its 4<sup>th</sup> Annual Coral Programs Review Meeting in Hawai'i and Palau. Hawai'i's meeting was primarily a business meeting, while the meeting in Palau incorporated interaction with stakeholders. A key objective of the meetings was to examine the approach of linking ecosystem level research with local community needs and traditional knowledge in

efforts to develop and implement more effective and proactive management strategies. A highlight of the Palau meeting was the use of sedimentation studies to validate a community's perception that upland watershed practices are the most pressing factor in coral reef degradation of an adjacent bay. This meeting, which brought together close to 50 scientists and managers, culminated in a gathering of CSCOR Program Officers and NCCOS Center Directors with key local environmental figures. These figures included representatives from the Palau International Coral Reef Center, Palau Conservation Society, Palauan Congress and the Nature Conservancy.

### International

**CRES Micronesia Program Transitions Efforts from Research to Application.** As funding for the National Centers for Coastal Ocean Science (NCCOS) Coral Reef Ecosystem Studies (CRES) Micronesia Program is winding down, the program reports that their research has successfully established a mechanism to address watershed impacts to coral reefs. This mechanism, a strong emphasis on community involvement as an alternative to traditional Western methods, has seen early success. Originally focused on Guam, the associated work has made visible strides for use in other Pacific Island nations including Palau, Yap, and Pohnpei. A first-hand example of this process in action occurred during the recent Center for Sponsored Coastal Ocean Research (CSCOR) 4<sup>th</sup> Annual Coral Programs Review Meeting in Palau. Meeting participants were afforded a unique opportunity to attend a community meeting in which CRES-funded scientists presented the science behind watershed management to community members, chiefs, and legislators in their native dialect. More details will be made available online at <http://www.cop.noaa.gov/ecosystems/coralreefs/welcome.html>.

### National/Headquarters

**Coral Reef Watch Scientist Speaks on Caribbean Bleaching at Climate Policy Center.** On March 31, a Coral Reef Watch (CRW) scientist gave a presentation on the 2005 Caribbean mass coral bleaching event at the Climate Policy Center (CPC), a Washington, D.C. non-governmental organization (NGO). His presentation, 'Record Breaking Coral Bleaching in the Caribbean: The 2005 Bleaching Event' was based on the presentation that he recently gave at the 8<sup>th</sup> Conference of the Parties to the Convention on Biodiversity (CBD COP8) in Curitiba, Brazil. In the presentation, the scientist examined how NOAA forecast this event and, as a result, how researchers in over 20 countries collaborated to document it. Data comparison indicated a strong linear relationship between heat stress and bleaching intensity. The bleaching was the result of the most intense high temperature stress ever seen in the Caribbean, based on both the 20 year satellite record and the 100 year instrumental record. Even before giving the presentation, publicity for the event resulted in interviews with two reporters, one from the Associated Press and one from Cox Newspapers. Look for both articles in the 'Articles Mentioning NOAA' section as the first two entries.

**Coral Reef Watch Products Made News in the Google Earth Community.** Shortly after their launch on April 8, Coral Reef Watch's (CRW) Google Earth™ products have quickly gained popularity among coral reef divers and the wider Google Earth community. A few days after CRW launched its Google Earth™ products for near-real-time coral bleaching monitoring, top Google Earth™ Weblog sites posted stories describing and promoting the products. Google Earth™ Blog ([http://www.gearthblog.com/blog/archives/2006/04/noaas\\_coral\\_ree.html](http://www.gearthblog.com/blog/archives/2006/04/noaas_coral_ree.html)) wrote that "[NOAA] is well aware of the importance of Coral Reefs ... and has an excellent web site ... to provide tools to the public for tracking near-real-time data important to the

environment of coral reefs.” An article entitled ‘Using Google Earth To Track Coral Bleaching Events’ is posted at the Divester website (<http://www.divester.com/page/7/> - originally posted April 10). Utilizing CRW Google Earth™ products, users can access the latest CRW monitoring data overlaid on the globe, zoom in, overlay other datasets, or pan around the entire earth. It is an excellent visualization tool that helps bring CRW data alive. To access the CRW data in this format, please visit <http://coralreefwatch.noaa.gov/satellite/ge/>. For more information on the entire suite of NOAA Coral Reef Watch satellite products, see <http://coralreefwatch.noaa.gov/>.

**Recent Additions to CoRIS.** To expedite populating NOAA’s Coral Archive, the Coral Reef Information System (CoRIS) proactively downloaded all remotely served CRCP projects’ coral data products for which CoRIS presently has metadata. However, Coral Reef Watch Advanced Very High Resolution Radiometer (AVHRR) sea surface temperature products were not downloaded. This effort netted of over 1200 files and five gigabytes of coral data products. In addition, CoRIS recently received bathymetry data for the South Atlantic Bight off Georgia and South Carolina ([http://www.coris.noaa.gov/metadata/records/html/bathymetry\\_georgia\\_sab\\_2005.html](http://www.coris.noaa.gov/metadata/records/html/bathymetry_georgia_sab_2005.html) , [http://www.coris.noaa.gov/metadata/records/html/bathymetry\\_south\\_carolina\\_sab\\_2005.html](http://www.coris.noaa.gov/metadata/records/html/bathymetry_south_carolina_sab_2005.html) ) from CRCP project ‘Multibeam mapping of 5 proposed MPAs on the continental shelf in the South Atlantic Bight.’ CoRIS also received bathymetry of the Oculina Banks ([http://www.coris.noaa.gov/metadata/records/html/bathymetry\\_oculina\\_2005.html](http://www.coris.noaa.gov/metadata/records/html/bathymetry_oculina_2005.html) ) from CRCP project ‘Mapping the Oculina Banks Marine Protected Area: Acoustic mapping, benthic habitat characterization, and integration into GIS.’

## CORAL REEFS IN THE NEWS

### *Articles mentioning NOAA*

**“Caribbean Coral Suffers Record Death” – March 30, 2006 (Associated Press on [www.ABCnews.go.com](http://www.ABCnews.go.com) and approx. 109 other sources).** “....‘The mortality that we’re seeing now is of the extremely slow-growing reef-building corals.’ Some of the devastated coral can never be replaced because it only grows the width of one dime a year, [National Park Service fisheries biologist Jeff] Miller said....‘We haven’t seen an event of this magnitude in the Caribbean before,’ said Mark Eakin, coordinator of the National Oceanic and Atmospheric Administration's Coral Reef Watch.” <http://abcnews.go.com/Technology/wireStory?id=1786946&CMP=OTC-RSSFeeds0312>

**“Hurricanes Katrina and Rita Blunt Bleaching of Florida Keys Coral Reefs” – April 1, 2006 (Cox News Service, United States).** “Coral reefs around the Florida Keys may have been spared during last year's episode of coral bleaching in the Caribbean thanks to Hurricanes Katrina and Rita.” [http://www.coxwashington.com/news/content/reporters/stories/BC\\_CORAL30\\_COX.html](http://www.coxwashington.com/news/content/reporters/stories/BC_CORAL30_COX.html)

**“Good News and Bad for Important Reef” – April 2, 2006 (The Daily News, TX).** “Scientists report good news and bad news at the Flower Garden Banks National Marine Sanctuary, an important set of coral reefs about 100 miles off the coast of Galveston.” <http://news.galvestondailynews.com/story.lasso?ewcd=ab77419d270fa55e>

**“NOAA/NSF Cruise Reveals Impacts of Ocean Acidification on Chemistry, Biology of North Pacific Ocean” – April 5, 2006 (NOAA Magazine and approx. 1 other source).** “Data collected from ocean sampling in the Pacific Ocean from the southern to northern hemispheres confirms that the oceans are becoming more acidic....‘The effects of decreased calcification in microscopic algae and animals could impact

marine food webs and, combined with other climatic changes in salinity, temperature and upwelled nutrients, could substantially alter the biodiversity and productivity of the ocean,' [Victoria] Fabry said."

<http://www.noanews.noaa.gov/stories2006/s2606.htm>

**"Warming, Disease Causing Major Caribbean Reef Die-Off" – April 6, 2006 (*National Geographic News*).**

"Caribbean coral reefs are dying from disease at an alarming rate, according to scientists who monitor the ocean ecosystems."

[http://news.nationalgeographic.com/news/2006/04/0406\\_060406\\_coral.html](http://news.nationalgeographic.com/news/2006/04/0406_060406_coral.html)

**"Climate Researchers Feeling Heat From White House" – April 6, 2006 (*The Washington Post*).**

"...Employees and contractors working for the National Oceanic and Atmospheric Administration, along with a U.S. Geological Survey scientist working at an NOAA lab, said in interviews that over the past year administration officials have chastised them for speaking on policy questions; removed references to global warming from their reports, news releases and conference Web sites; investigated news leaks; and sometimes urged them to stop speaking to the media altogether."

<http://www.washingtonpost.com/wp-dyn/content/article/2006/04/05/AR2006040502150.html>

**"Climate Change Shattering Marine Food Chain" – April 10, 2006 (*Inter Press Service News Agency, Italy*).**

"Vast swaths of coral reefs in the Caribbean sea and South Pacific Ocean are dying, while the recently-discovered cold-water corals in northern waters will not survive the century -- all due to climate change."

<http://www.ipsnews.net/news.asp?idnews=32843>

**"Researchers Unveil 'Super Sucker' New Alien Algae Removal Machine" – April 11, 2006 (*The Nature Conservancy press release on***

[www.nature.org](http://www.nature.org)). "Marine researchers in Hawaii have a new weapon in the battle against alien

algae. They call it the 'super sucker,' and it acts as an underwater vacuum cleaner to take invasive algae off the reef. Initial tests show it can remove up to 800 pounds in a single hour."

<http://www.nature.org/wherework/northamerica/status/hawaii/press/press2376.html>

**"Sen. Hollings Receives Award for Leadership on Ocean, Coastal Policy" – April 11, 2006 (*US Newswire on***

[www.news.yahoo.com](http://www.news.yahoo.com)). "...Hollings, a leading champion for the oceans since taking his seat in the United States Senate more than four decades ago, has a generous list of legislative accomplishments that has set him apart as one of this nation's most distinguished ocean advocates. His major accomplishments include [the] creation of the National Oceanic and Atmospheric Administration (NOAA) in 1970 resulting in him being widely regarded as the 'Father of NOAA.'"

[http://news.yahoo.com/s/usnw/20060411/pl\\_usnw/sen\\_hollings\\_receives\\_award\\_for\\_leadership\\_on\\_ocean\\_coastal\\_policy109.xml;\\_ylt=AgP8rmiN.shA1esXbQw4luCyFz4D;\\_ylu=X3oDMTA5aHJvMDdwBHNIYwN5bmNhdA](http://news.yahoo.com/s/usnw/20060411/pl_usnw/sen_hollings_receives_award_for_leadership_on_ocean_coastal_policy109.xml;_ylt=AgP8rmiN.shA1esXbQw4luCyFz4D;_ylu=X3oDMTA5aHJvMDdwBHNIYwN5bmNhdA)

*Other articles*

**"Europeans Arrested, Fined for Scuba Diving in No-dive, No-take Marine Reserve" – March 27, 2006 (*Cyber Diver News Network*).**

"Two German nationals and their Filipino guide were arrested Wednesday and later fined for scuba-diving inside a marine sanctuary off the coast of Brgy. Lipayo, Dauin, Oriental Negros."

<http://www.cdninfo.com/news/eco/e060327.html>

**"RP Hosts 'Oceans 38' to Save World Seas" – March 29, 2006 (*Asian Journal, CA and approx. 1 other source*).**

"The Philippines, along with Portugal and Indonesia, is leading 13 Asian countries and 25 European Union member states in one of the biggest international efforts to save the world's oceans and marine resources from further depletion."

<http://www.asianjournal.com/?c=123&a=11748&sid=9f8fc5ef2979d38b254f38dd4c21518e>



**“Island Nations Commit to Conservation Goals” – March 29, 2006 (IUCN press release in *Pacific Magazine*, HI).** “...The President of Palau, H.E. Tommy Remengesau, Jr. ...with the support of leaders across Micronesia announced the Micronesia Challenge: to protect 30 percent of near-shore marine and 20 percent of terrestrial resources on islands by 2020. Inspired by its Micronesian counterparts in the Pacific, the Caribbean nation of Grenada pledged to put 25 percent of near-shore marine and 25 percent of terrestrial resources under effective conservation by 2020.”

<http://www.pacificislands.cc/pina/pinadefault2.php?urlpinaid=21084>

**“Spill Sends Millions Of Gallons Of Sewage Into Hawaii Canal” – March 29, 2006**

**(Associated Press on [www.TheHawaiiChannel.com](http://www.TheHawaiiChannel.com) and approx. 51 other sources).**

“...A state Health Department spokesman said, for the most part, the current’s been taking the sewage straight out to sea, but he added, ‘that could change.’ There’s also concern about possible damage to coral reefs and other marine life. ‘I know there’s some concern about the amount of sewage that has gone into the Ala Wai Canal. As much as we wanted to avoid that, it’s not possible,’ city Environmental Services director Eric Takamura said.”

<http://www.thehawaiichannel.com/news/8333051/detail.html>

**“Scientists Plan to Set Up Reef Monitoring Network” – March 29, 2006 (*The Mail and Globe Online*, Africa).** “Marine scientists from around the world met in Australia on Wednesday to set up a digital sensor network that can monitor endangered coral reefs around the globe.”

[http://www.mg.co.za/articlePage.aspx?articleid=268025&area=/breaking\\_news/breaking\\_news\\_international\\_news/](http://www.mg.co.za/articlePage.aspx?articleid=268025&area=/breaking_news/breaking_news_international_news/)

**“\$6 Million Pledged for Conservation Efforts” – March 30, 2006 (*Pacific Magazine*, HI).** “The Nature Conservancy and Conservation International committed US\$6 million towards conservation across Micronesia, a region in the Pacific Ocean stretching from Hawaii to the Philippines.”

<http://www.pacificislands.cc/pina/pinadefault2.php?urlpinaid=21113>

**“Award-winning Films Put Spotlight on Island’s Coral Reefs” – March 30, 2006 (*The Royal Gazette*, Bermuda).** “Two award-winning documentaries about Bermuda’s coral reefs will be screened on the Island on Friday.”

<http://www.theroyalgazette.com/apps/pbcs.dll/article?AID=/20060329/NEWS/103290125>

**“Singapore Underwater Federation to Develop Coral Reef at Pulau Hantu” – March 30, 2006**

**(*Channel News Asia*, Singapore).** “The Singapore Underwater Federation is looking into developing a coral reef on the southern island of Pulau Hantu.”

<http://www.channelnewsasia.com/stories/singaporelocalnews/view/200698/1/html>

**“Oceans Gradually Turning into Vast ‘Fizzy Drink’” – March 30, 2006 (*Cyber Diver News Network*).** “...The sea life expected to be worst hit include organisms that produce calcium carbonate shells, as these are harder to form in acidic waters. That means that corals, crustaceans, molluscs and certain plankton species will be at risk.”

<http://www.cdn.info/news/science/sc060329.html>

**“Kiribati to Create Massive Pacific Marine Sanctuary” – March 30, 2006 (*Associated Press in Taipei Times*, Taiwan and approx. 4 other sources).** “The tiny island nation of Kiribati announced the creation of the world’s third-largest

marine protected area at a UN-sponsored environmental conference in Brazil, according to regional officials.”  
<http://www.taipetimes.com/News/world/archives/2006/03/30/2003299998>

**“Marine Reserve to Protect Beauty of Pacific” – March 30, 2006 (News Telegraph, United Kingdom).** “‘If the coral and reefs are protected, then the fish will grow and bring us benefit,’ said Anote Tong, the president of Kiribati (pronounced Kiribas). ‘In this way all species of fish can be protected so none becomes depleted or extinct.’”  
<http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/03/30/wkirib30.xml&sSheet=/news/2006/03/30/ixworld.html>

**“ABC of Conservation” – April 3, 2006 (The Telegraph, India).** “...WWF (World Wildlife Fund, not the standard-bearer of the ‘reality show’ with chest-thumping wrestling) is going on beam to spread the conservation word. The result is *Planet Action*, an eco-reality series on Animal Planet that premiered globally on Sunday night.”  
[http://www.telegraphindia.com/1060404/asp/calcutta/story\\_6051055.asp](http://www.telegraphindia.com/1060404/asp/calcutta/story_6051055.asp)

**“Climate Change Threatens Coldwater Reefs” – April 3, 2006 (The Ecological Society of America press release on [www.esa.org](http://www.esa.org) and approx. 3 other sources).** “...Scientists have known for years that shallow-water tropical coral reefs are threatened by both warming oceans and chemical changes in seawater caused by the build-up of CO<sub>2</sub> in the atmosphere. Above-average seawater temperatures have caused coral bleaching events throughout the world, and the calcification rates of corals exposed to more acidic conditions in laboratory experiments have shown worrisome declines,” says Guinotte. “But now we suspect that this increase in CO<sub>2</sub> will have a detrimental effect on cold-water corals as well.”  
<http://www.esa.org/pao/PressRoom/pressReleases2006/04032006.php>

**“NASA Helps Researchers Diagnose Recent Coral Bleaching at Great Barrier Reef” – April 5, 2006 (NASA press release on [www.nasa.gov](http://www.nasa.gov) and approx. 27 other sources).** “An international team of scientists are working at a rapid pace to study environmental conditions behind the fast-acting and widespread coral bleaching currently plaguing Australia's Great Barrier Reef. NASA's satellite data supply scientists with near-real-time sea surface temperature and ocean color data to give them faster than ever insight into the impact coral bleaching can have on global ecology.”  
[http://www.nasa.gov/centers/goddard/news/topstory/2006/coral\\_bleach.html](http://www.nasa.gov/centers/goddard/news/topstory/2006/coral_bleach.html)

**“KQED, Cousteau share ‘Voyage’” – April 5, 2006 (Contra Costa Times, CA).** “...In tonight's opener, Cousteau's 22-member crew, equipped with cutting-edge HDTV cameras, sets out from Honolulu in search of rich and robust marine life far from the largely damaged coral reefs that surround the populated islands.”  
<http://www.contracostatimes.com/mld/cctimes/14273110.htm>

**“Terengganu Bans Flippers” – April 6, 2006 (The Star Online, Malaysia and approx. 4 other sources).** “...State authorities have banned the use of flippers in a bid to protect corals especially in the coastal waters off Pulau Redang and Pulau Perhentian.”  
<http://thestar.com.my/news/story.asp?file=/2006/4/6/nation/13881602&sec=nation>

**“Coral Pathogen Benefits From Global Warming” – April 7, 2006 (Practical Fishkeeping, United Kingdom).** “A bacteria that causes a disease in hard corals could become more successful as sea temperatures rise and the pH of the oceans drop.”  
<http://www.practicalfishkeeping.co.uk/pfk/pages/item.php?news=901>

**“U. Boasts ‘Million-Dollar Snail Professor’” – April 10, 2006 (*Deseret Morning News*, UT).**  
“[Dr. Baldomero Olivera] began studying the venom of the sea snails that are plentiful in parts of the Pacific.... That humble beginning eventually resulted in Olivera's worldwide fame as a top researcher into the neurotoxins produced by sea snails. The material has the potential for many medical applications, including painkillers.”  
<http://deseretnews.com/dn/view/0,1249,635198437,00.html>

**“Caribbean Reefs Ailing from Bleaching, Disease” – April 10, 2006 (*Reuters*, United Kingdom and approx. 20 other sources).**  
“Deadly diseases are attacking coral reefs across the Caribbean Sea after a massive surge of coral bleaching last summer, a two-pronged assault that scientists say is one of the worst threats to the region's fragile undersea gardens. The attack, which is killing centuries-old corals, is the result of unusually hot water across the Caribbean region that some scientists argue is a consequence of global warming.”  
[http://today.reuters.co.uk/news/NewsArticle.aspx?type=scienceNews&storyID=2006-04-10T154630Z\\_01\\_N10355395\\_RTRIDST\\_0\\_SCIENCE-ENVIRONMENT-REEFS-DC.XML](http://today.reuters.co.uk/news/NewsArticle.aspx?type=scienceNews&storyID=2006-04-10T154630Z_01_N10355395_RTRIDST_0_SCIENCE-ENVIRONMENT-REEFS-DC.XML)

**“While Recovering from 2005 Bleaching, V.I. Coral Reefs Now Facing White Plague” – April 10, 2006 (*St. John Tradewinds*, U.S. Virgin Islands).** “Coral reefs in the Virgin Islands recovering from an unprecedented bleaching event last year, now are likely suffering from a disease known as white plague. ‘When we saw the extent and severity of the bleaching in September of last year, we were all very concerned about the downstream long term effects that it would have on the reefs,’ said National Park Service fisheries biologist Jeff Miller.”  
[http://www.stjohntradewindsnews.com/index.php?option=com\\_content&task=view&id=340&Itemid=38](http://www.stjohntradewindsnews.com/index.php?option=com_content&task=view&id=340&Itemid=38)

**“Construction Trash Vital to Reef Program” – April 11, 2006 (*Tampa Bay Newspapers*, FL).**  
“Concrete from the deconstruction of John’s Pass Bridge is making new homes for marine life. Thanks to a partnership between Pinellas County Reef Construction Program and Flat Iron Constructors Inc., more than 600 tons of concrete have been donated and placed at the Indian Shores and South County Reef sites. More materials will be donated as bridge construction continues.”  
[http://www.tbnweekly.com/content\\_articles/041206\\_fpg-01.txt](http://www.tbnweekly.com/content_articles/041206_fpg-01.txt)

**“Reef Check Australia Present ‘Beeramundi: Saving the Reef One Beer at a Time’” – April 12, 2006 (Reef Check Australia press release on *eMediaWire.com*).** “Townsville’s beer lovers will soon be able to help save the Reef while they’re at the bar, by diving into a new brew called Beeramundi. The new beer was named as part of a competition held in partnership between Reef Check Australia and the Townsville Brewing Company.”  
<http://www.emediawire.com/releases/2006/4/emw370253.htm>

**“Mean ‘Sucker’ Defeats Alien Algae” – April 12, 2006 (*The Honolulu Advertiser*, HI).** “An underwater vacuum is rescuing the reefs in Kane`ohe Bay and providing valuable fertilizer for taro farmers. Dubbed the ‘super sucker,’ the alien algae removal machine demonstrated its abilities yesterday at the pier opposite Coconut Island.”  
<http://www.honoluluadvertiser.com/apps/pbcs.dll/article?AID=/20060412/NEWS11/604120345/1021/NEWS>

**“Hawaii Crews Vacuum Up Invasive Algae” – April 13, 2006 (*Associated Press in Monterey County Herald*, CA and approx. 20 other sources).** “Marine researchers in Hawaii discovered a new way to clean ocean water from invasive algae - sucking them up with an underwater vacuum.”  
[http://www.montereyherald.com/mld/montereyherald/news/breaking\\_news/14336918.htm](http://www.montereyherald.com/mld/montereyherald/news/breaking_news/14336918.htm)

**“Freeville Man Runs Colorful Coral Farm Out of His Home” – April 13, 2006 (*The Ithaca Journal*, NY).** “When people say, ‘coral reefs are the rainforests of the sea, they should really be saying the reverse — rainforests are the coral reefs of the land.’ This is how [Steve] Lowes describes the ecosystems he reproduces in his basement aquaria. Lowes is the founder and owner of Reef Encounters, a coral propagation business that currently farms about 50 species of coral on a routine basis.”

<http://www.theithacajournal.com/apps/pbcs.dll/article?AID=/20060413/NEWS01/604130306/1002>

**“The Race to Save the Paradise of Biologists” – April 15, 2006 (*Zee News*, India).** “Will the Gulf of Mannar, the ‘paradise of biologists’, be lost or saved due to indiscriminate fishing?”

<http://www.zeenews.com/znnew/articles.asp?aid=288620&sid=ZNS>

**“Fish-bombing: Six Filipino Illegals Held” – April 17, 2006 (*Daily Express*, Malaysia).** “The Fisheries Department and marine police believe they have crippled a group of Filipino illegals suspected to be behind fish-bombing in the district waters over the past 10 years.”

<http://www.dailyexpress.com.my/news.cfm?NewsID=41508>

**“Drillers Eye Reef” – April 17, 2006 (*The Courier Mail*, Australia).** “Fears are held for the Great Barrier Reef with Australia’s oil and gas companies pushing to drill in national parks and marine conservation areas.”

<http://www.couriermail.news.com.au/story/0,20797,18830635-953,00.html>

**“Japan to Study Expanding Coral Reefs Near Islets Disputed With China” – April 17, 2006 (*Mainichi Daily News*, Japan and approx. 2 other sources).** “Japan will begin studying how to expand coral reefs near two islets at the center of a territorial dispute with China, an official said

Monday. The research will involve cultivating and transplanting coral eggs, said Fisheries Agency official Ryutaro Yamamoto.”

<http://mdn.mainichi-msn.co.jp/national/news/20060417p2a00m0na017000c.html>

**“A Stark Message in Deathly White Coral” – April 19, 2006 (*The Times Online*, United Kingdom).** “...Tobago, like many Caribbean islands, is in the front line of climate change. The bleaching of its reefs came about because the sea around its coast had warmed by three degrees centigrade above the normal, rising as high as 31 (88F), which is well above the coral’s tolerance levels.” <http://www.timesonline.co.uk/article/0,,6-2140574,00.html>

**“Mooring Buoys Near Newly Found Coral Might Aid Tourism” – April 19, 2006 (*Naples Daily News*, FL).** “Nine mooring buoys might be placed near Collier County’s shore to attract anglers and divers to coral-rich outcroppings that could add a new dimension to the county’s \$1.1 billion tourism industry. The buoys would furnish boaters for the first time with a means to steady their vessels without using damaging anchors while exploring the coral.”

[http://www.naplesnews.com/news/2006/apr/19/mooring\\_buoys\\_near\\_newly\\_found\\_coral\\_might\\_aid\\_tou/?local\\_news](http://www.naplesnews.com/news/2006/apr/19/mooring_buoys_near_newly_found_coral_might_aid_tou/?local_news)

**“Villar Calls for Preservation of Country’s Dive Sites” – April 20, 2006 (*The Mindanao Daily Mirror*, Philippines).** “Senator Manny Villar, President of the Nacio-nalista Party, said now more than ever, the continued preservation and protection of local underwater resources should be ensured particularly coral reefs which add significantly to the attraction of popular dive sites in the country....To aid in the preservation of all dive spots in the country, Villar filed Senate Bill 732 or the Coral Reefs Protection and Preservation Act which seeks for the creation of

reservation areas for the preservation and protection of the coral reefs.”

<http://bond.lanesystems.com/sitegen/article.asp?wid=125&cid=452&aid=36680>

**“Evidence Surfaces Linking Decline of Coral Reefs to Sewer Pipes, Runoff” – April 16, 2006 (*The State, SC* and approx. 27 other sources).**

“...Prozac, estrogen fertilizer, pesticides, antibacterial soap and countless other chemicals pour into the ocean off southeast Florida, shot through sewer pipes and washed off lawns, golf courses, roads and farms. Environmentalists have long suspected this brew of playing a role in the decline of coral reefs. Now a study by academic and government scientists has tentatively linked sewage pipes and coastal runoff to coral damage off southeast Florida.”

<http://www.thestate.com/mld/thestate/news/nation/14396088.htm>

**“Concerns for Bloody Bay” – April 21, 2006 (*Cayman Net News Online, Cayman Islands*).**

“Following a meeting of the Marine Conservation Board (MCB) on 31 March, two more watersports businesses were granted commercial licenses to dive in the Marine Park off the coast of Little Cayman. The new licenses have been issued amid fears that the Park, one of the most popular diving areas in the world, is already in danger of being over-dived.” <http://www.caymannetnews.com/cgi-script/csArticles/articles/000013/001327.htm>

**“Proposal Would Close NW Islands Lobster Fishery” – April 21, 2006 (*The Honolulu Advertiser, HI*).** “A Hawai`i-based federal fishery council is recommending permanently closing the Northwestern Hawaiian Islands lobster fishery, but retaining a number of other fisheries — including the controversial industry that targets bottom fish.”

<http://www.honoluluadvertiser.com/apps/pbcs.dll/article?AID=/20060421/NEWS01/604210375/1190/NEWS>

**“The Great Diminishing Reef” – April 21, 2006 (*The Age, Australia*).** “Warming of the oceans threatens the long-term survival of the Great Barrier Reef.... [Marine scientist, Paul] Marshall and a rotating roster of scientists have spent more than a month on the catamaran *Pelican 1*, cruising the entire 2000 kilometres of the reef from south to north to assess its health after the summer months, when waters were at their warmest.”

<http://www.theage.com.au/news/in-depth/great-barrier-grief/2006/04/20/1145344220538.html>

**“Palm Beach Dune Project Nearly Done” – April 22, 2006 (*Palm Beach Post, FL*).**

“...Several groups complained that the dredge, contracted by the firm Bean Stuyvesant, stirred up enough silt to cover the nearshore reefs, including Horseshoe Reef near the Lake Worth Pier. Palm Beach Reef Rescue, the Surfrider Foundation and the Sierra Club also said the town used sand that is too fine to stay on the beach for long.”

[http://www.palmbeachpost.com/storm/content/local\\_news/epaper/2006/04/22/c1b\\_pbbeach\\_0422.html](http://www.palmbeachpost.com/storm/content/local_news/epaper/2006/04/22/c1b_pbbeach_0422.html)

**“Environmental Designs Honoured” – April 23, 2006 (*The Nation, Thailand* and approx. 1 other source).**

“Bangkok will host the first global Holcim Awards tomorrow, in which 15 of the most environmentally friendly architectural, industrial, engineering and urban planning designs from five continents compete for the gold medal. Among the finalists are an entry from the Philippines in which concrete substrates are used to speed up the restoration of coral reefs ....”

[http://nationmultimedia.com/2006/04/23/headlines/headlines\\_30002309.php](http://nationmultimedia.com/2006/04/23/headlines/headlines_30002309.php)

**“Living Oceans Foundation leads Red Sea expedition” – April 24, 2006 (*Innovations Report, Germany*).** “Khaled bin Sultan Living Oceans Foundation will lead an all-star team of scientist divers on an expedition to study the ‘rainforests’ of the Red Sea. State-of-the-art technology will enable the team to complete years of coral reef research in just three weeks. The

research will focus on threats to coral health such as global climate change, ecotourism, over-fishing, pollution and development.”

[http://www.innovations-report.com/html/reports/environment\\_sciences/report-58300.html](http://www.innovations-report.com/html/reports/environment_sciences/report-58300.html)

**“Sea Streaming” – April 24, 2006 (*San Diego State Universe, CA*).** “...Biology professor Forest Rohwer and Neilan Kuntz of Plaid Productions created the Coral Reef Multimedia Project, a Web site that presents narrated video of coral systems around the world that combines video, photography and visual effects to facilitate the learning and teaching process about corals.”

<http://www.sdsuniverse.info/story.asp?id=42063>

**“Caribbean Coral Threatened/Scientists Warn of Threat to Coral Reefs” – April 24, 2006 (*Associated Press in Caymanian Compass, Cayman Islands and approx. 49 other sources*).**

“Warming sea temperatures have scientists worried that the Caribbean could see a repeat this year of the widespread coral death that swept the region in 2005. About 40 percent of coral died around parts of the U.S. Virgin Islands last year, and the coral that survived likely isn’t healthy enough to survive another hot summer, U.S. Geological Survey biologist Caroline Rogers told The Associated Press.”

<http://www.caycompass.com/cgi-bin/CFPnews.cgi?ID=1012763>

**“Ceramic Reefs Boost Growth of El Nido's Sea Rainforests” – April 24, 2006 (*Philippine Daily Inquirer, Philippines and approx. 1 other source*).**

“Reforestation is going on under water in El Nido, a world-renowned dive site and threatened fishing ground in Palawan province. Environmentalists have installed ceramic coral reefs -- or EcoReefs -- near Tres Marias, a cluster of limestone cliffs jutting out of Bacuit Bay to boost the growth of coral reefs, dubbed the rainforests of the sea.”

[http://news.inq7.net/nation/index.php?index=1&story\\_id=73540](http://news.inq7.net/nation/index.php?index=1&story_id=73540)

**“Oman Urged to Take Lead in Protecting Coral Reefs” – April 25, 2006 (*Times of Oman, Oman*).** “The Ministerial Council of the Regional Organisation for the Protection of Marine Environment (ROPME) concluded its 13th meeting [in Oman] yesterday. The conferees recommended that the Sultanate should be nominated as a leading state in managing and protecting coral reefs.”

<http://www.timesofoman.com/newsdetails.asp?newsid=28878&pn=local>

## UPCOMING EVENTS

If you have events you would like listed in future newsletters, please contact [coralreef@noaa.gov](mailto:coralreef@noaa.gov).

### May 2006

- 1 – 5: **15<sup>th</sup> U.S. Coral Reef Task Force Meeting.** Washington, D.C.  
<http://www.coralreef.gov/taskforce/meetings.html>
- 8: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Dania Beach, FL.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 9: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Key Largo, FL.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 10: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Marathon, FL.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 11: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Key West, FL.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 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/>
- 18 – 19: **NOAA National Coral Reef Ecosystem Monitoring Program Atlantic Regional Meeting.** Miami, FL. Attendance by invitation only.
- 23: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Christiansted, St. Croix, USVI.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 23 – 26: **American Geophysical Union – Joint Assembly.** Baltimore, MD. [www.agu.org/meetings](http://www.agu.org/meetings)
- 24: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Charlotte Amelie, St. Thomas, USVI.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 25: **NOAA Fisheries *Acropora* Conservation Public Workshop.** Rio Piedras, Puerto Rico.  
<http://sero.nmfs.noaa.gov/pr/protres.htm> .
- 29 – 31: **3<sup>rd</sup> International Symposium on Networks in Bioinformatics.** Amsterdam, The Netherlands.  
<http://isnb.amc.uva.nl/>

### June 2006

- 4 – 9: **2006 ASLO Summer Meeting.** Victoria, British Columbia. Abstracts due January 20, 2006.  
<http://www.aslo.org/meetings/victoria2006/>
- 8: **World Ocean Day.**
- 13 – 14: **Capitol Hill Oceans Week 2006.** Washington, D.C. <http://www.nmsfocean.org/chow2006/>
- 18 – 24: **Asia Pacific Coral Reef Symposium.** Hong Kong SAR, China. Abstracts due February 15, 2006.  
<http://www.cuhk.edu.hk/bio/APCRS/index.htm>
- 24 – 28: **Society for Conservation Biology: 20th Annual Meeting – Conservation Without Borders.** Abstracts due Oct. 15, 2005. San Jose, CA. <http://www.conbio.org/2006/>

### July 2006

- 17 – 21: **National Marine Educators Association (NMEA) Conference 2006.** New York, NY.  
<http://nysmea.org/con06/>

August 2006

7 – 11: **Establishing Coral Reef MPA Managers' Requirements to Guide Integrative Observing System Tool Development Retreat.** La Parguera, Puerto Rico. <http://www.coral.noaa.gov/mpa/retreat/>

September 2006

10 – 14: **American Fisheries Society 136<sup>th</sup> Annual Meeting.** Lake Placid, NY.

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

17 – 20: **California and World Oceans Conference.** Long Beach, CA.

<http://resources.ca.gov/ocean/cwo06/>

18 – 22: **Marine Technology Society and IEEE Oceanic Engineering Society Oceans Conference 2006.**

Boston, MA. <http://www.oceans2006americas.org/>

19 – 22: **European Coral Reef Conference 2006.** Bremen, Germany. Abstracts and early registration due

by May 15<sup>th</sup>. <http://isrs2006.zmt-bremen.de>

22 – 24: **MACNA XVIII: Futures in Reefkeeping.** Houston, TX. <http://www.macnaxviii.com/>

October 2006

15 – 20: **ITMEMS 3: Global Problems, Local Solutions.** Cozumel, Mexico. <http://www.itmems.org>

30 – 31: **Coral Reef Ecosystems Biodiversity Forum.** Noumea, New Caledonia.

[http://www.ird.nc/biodec/english/home\\_page.html](http://www.ird.nc/biodec/english/home_page.html)

November 2006

1 – 4: **Coral Reef Ecosystems Biodiversity Forum.** Noumea, New Caledonia.

[http://www.ird.nc/biodec/english/home\\_page.html](http://www.ird.nc/biodec/english/home_page.html)

6 – 10: **59<sup>th</sup> Meeting of the Gulf and Caribbean Fisheries Institute (CGFI).** Belize City, Belize.

[www.gcfi.org](http://www.gcfi.org)

December 2006

9 – 13: **Restoring America's Estuaries (RAE) – Forging the National Imperative.** New Orleans, LA.

<http://www.estuaries.org/?id=4>

**Questions, comments?**

Contact [coralreef@noaa.gov](mailto: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>.

