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The Coral Reef Conservation Program (CRCP) is a partnership between the NOAA Line Offices working on coral reef issues, including the National Ocean Service ([NOS](#)), the National Marine Fisheries Service ([NMFS](#)), the Office of Oceanic and Atmospheric Research ([OAR](#)) and the National Environmental Satellites, Data and Information Service ([NESDIS](#)). From mapping and monitoring to managing reef resources and removing harmful debris, the CRCP addresses the priorities laid out in both the [National Action Plan to Conserve Coral Reefs](#) and the [National Coral Reef Action Strategy](#).

Coral Reef News



Volume 6, No. 11

August 2009

From the Desk of the Program Manager

I am pleased to announce that the CRCP has a new graphic identity that is available in both portrait and landscape layouts. As you can see, this new identifier and its color theme have been incorporated into our newsletter. It has also been incorporated into our Web site, so the next time you visit www.coralreef.noaa.gov, you will notice that the site has a new color theme based upon the colors in the identifier.

In addition, we have provided the identifier files online for use by CRCP-funded projects in their products and publications. Instructions for proper use are also available. The files and instructions can be found at: www.coralreef.noaa.gov/about/identifier/welcome.html. Web users can also access this page from the '[About the NOAA Coral Reef Conservation Program](#)' page.

- Kacky



**NOAA
CORAL REEF
CONSERVATION PROGRAM**

Announcements

Registration Open for 22nd U.S. Coral Reef Task Force Meeting. The 22nd meeting of the U.S. Coral Reef Task Force will be held at the Caribe Hilton in San Juan, Puerto Rico, from October 30-November 5. Online registration opened this month and is available at www.coralreef.gov.

MPA Center Announces Second Round of Nominations for National System of MPAs. On August 6, the [National Marine Protected Area \(MPA\) Center](#) officially started the second nomination process for existing sites to nominate themselves for inclusion in the national system of MPAs. Eligible federal, state, territorial, and tribal MPA programs are invited to nominate some of all of their sites by November 6, 2009. A first round of nominations was held in the fall of 2008 and resulted in an initial group of 225 sites accepted into the national system. All

nominated sites will be announced in the [Federal Register](#) and available for public comment on www.mpa.gov. After final review by the managing agency and the MPA Center, mutually agreed upon MPAs will be accepted into the national system. To see sites eligible for the national system, click [here](#). For more information on the National System of Marine Protected Areas and the nomination process, including access to an electronic nomination package, click [here](#).

ICRI Secretariat Changeover. On July 1, the International Coral Reef Initiative (ICRI) Secretariat transitioned from being co-chaired by the governments of the United States and Mexico to the governments of France, assisted by Monaco, and Samoa. The term of the new co-chairs runs through June 30, 2011. The ICRI [Website](#) remains the same, though a new site, funded by the U.S. Department of State, (*continued on page 8*)

UPCOMING EVENTS

September

21-25: [OceanObs'09 Conference: 'Ocean Information for Society: Sustaining the Benefits, Realizing the Potential'](#), Venice, Italy.

November

2: Applications due for both the NOAA Coral Reef Conservation Grant Program; General Coral Reef Conservation Grant and Projects to Improve or Amend Coral Reef Fishery Management Plans.

2-5: 22nd U.S. Coral Reef Task Force Meeting, San Juan, Puerto Rico

9: Pre-applications due for NOAA International Coral Reef Grant Program.

20: Pre-applications due for NOAA Coral Reef Monitoring Grant Program.

30: Pre-applications due for NOAA Coral Reef Management Grant Program.

Updates from the Atlantic/Caribbean Region

New Genetic Probes Rapidly Identify Organisms that Cause Ciguatera Fish Poisoning. Scientists from NOAA's [National Centers for Coastal Ocean Science](#) (NCCOS) developed and are utilizing new diagnostic tools for rapidly detecting and identifying the harmful algae species responsible for ciguatera fish poisoning (CFP). CFP is the most common non-bacterial food poisoning in the world and is caused by the bioaccumulation of toxins produced by benthic dinoflagellates in the genera *Gambierdiscus* and *Ostreopsis* that are extremely difficult to distinguish from co-occurring species. Researchers from NCCOS and the [Smithsonian Institution](#) are utilizing species-specific genetic probes to rapidly identify each species and their associated distribution among inshore benthic habitats. This information is being used to understand the environmental factors that govern CFP-dinoflagellate populations and to predict how climate change and human activities might increase the incidence of CFP along the southeast Atlantic coast, Gulf of Mexico, and Caribbean. Understanding how and why reefs become ciguateric will aid in coral reef management and increase the capability to predict shifts in CFP incidence with global warming.

NCCOS Assists in Documenting Coral Injury Recovery. Staff from NOAA's [National Centers for Coastal Ocean Science](#) (NCCOS) recently assisted the NOAA National Marine Fisheries Service's [Restoration Center](#) in monitoring coral recruitment at two vessel grounding injury sites in Puerto Rico. Recruitment and mortality of soft and stony corals were compared in both impacted and restored portions of the sites. The data are critical in determining whether the injury is recovering, and helping the Restoration Center understand how natural events such as hurricanes affect recovery rates.

Interns Prepare for Futures in Coastal and Ocean Science. This summer, NOAA's [National Centers for Coastal Ocean Science](#) (NCCOS) supported several interns at the [Hollings Marine Laboratory](#) in Charleston, SC as part of its efforts to train the next generation of researchers and coastal managers. Students in the NOAA [Hollings Scholar Program](#) assessed the local economic benefits of healthy ecosystems and a student in NOAA's [Education Partnership Program](#) conducted work in marine environmental metabolomics. Five students participating in the College of Charleston's [Research Experiences for Undergraduates Program](#) conducted work in corals biology, phytoplankton ecology, crustacean physiology, and red

drum population genetics. One of these students, a rising senior at Hardin University in Arkansas, completed a project aimed at elucidating how several light-harvesting pigments in four clades of the genus *Symbiodinium* respond to two coral bleaching conditions - increased light intensity and hyposalinity. Three students in the Medical University of South Carolina's [Summer Undergraduate Research Program](#) were working on oceans and human health issues using chemistry and genomics biomedical research.

Follow Blog on 2009 Acropora Spawning in the Florida Keys. Elkhorn (*Acropora palmata*) and Staghorn (*A. cervicornis*) corals were listed as threatened under the Endangered Species Act on May 9, 2006. These two species are managed by the NOAA Fisheries Service Southeast Region [Protected Resources Division](#). Annual mass spawning, during which these species release millions of gametes in a precisely synchronized event, is observed by NOAA scientists as part of both management and research activities. Spawning events allow the stationary animals to mix genetically and disperse offspring over great distances. This reproductive mechanism is also believed to maximize the chances of fertilization, and at the same time overwhelm predators with more food than they can possibly consume. The exact cues triggering the annual phenomenon remain unclear, but they are generally believed to be linked to water temperatures as well as the lunar and tidal cycles.



This elkhorn coral (*Acropora palmata*) was observed spawning at Elbow Reef on August 11th. Courtesy: Dana Williams

The NOAA Fisheries Protected Resources Division hosted a [blog](#) to record the 2009 *Acropora* Spawning Event from August 6-14. The researchers and others observed spawning of both *Acropora* species, as well as *Montastrea faveolata*. Please visit the site to read updates about the event, including news from [SCUBAnauts](#), who are 12-18 year-old students (continued on page 3)

Atlantic/Caribbean continued...

that helped observe three spawning events in the Florida Keys. For more information about the listing and conservation of these species please click [here](#).

New ICON/CREWS Installed at Little Cayman. The [Central Caribbean Marine Institute](#) (CCMI) and NOAA's [Atlantic Oceanographic and Meteorological Laboratory](#) (AOML) are pleased to announce the installation and operation of a new [Coral Reef Early Warning System](#) (CREWS) station, as part of the [Integrated Coral Observing Network](#) (ICON), just north of CCMI's [Little Cayman Research Center](#).

The monitoring station is a sophisticated device containing instruments that measure a broad range of local atmospheric and oceanic conditions. Data reported include wind speed, wind gusts, wind direction, air temperature, barometric pressure, precipitation, photosynthetically available radiation, ultraviolet radiation, sea temperature, underwater pressure, and salinity. Additional sensors will be added in the future to augment new and continuing research programs near LCRC and the adjacent Bloody Bay Marine Park. The data from the station are being reported and integrated with satellite data [online](#); the station is identified as LCIY2. These data will also be reported to the [Cayman Islands Weather Service](#) and to the [National Weather Service](#) via NOAA's [National Data Buoy Center](#). The station began transmitting data on July 22.

This project was funded by the CCMI, the [Cayman Islands Government](#), [Stuarts Walkers Hersant](#), NOAA's [Coral Reef Conservation Program](#), and NOAA AOML. For more information, visit the NOAA [blog](#), which describes the installation and maintenance of the station, or CCMI's home page to link to video of the installation.



The new ICON/CREWS station, LCIY2, depicted with the Little Cayman Research Center in the distance. Courtesy: Jim Hendee

Tortugas National Park Research Natural Area Cruise Completed. A team of NOAA scientists joined a multi-agency fish monitoring cruise to [Dry Tortugas National Park](#) from July 20-30, 2009 on board the *M/V Spree*. This cruise, which included scientists from NOAA Fisheries, the [National Park Service](#), the State of Florida, and the [Rosenstiel School of Marine and Atmospheric Science](#) at the University of Miami, is part of a multi-year effort to improve our understanding of the health of reef fish communities in the Dry Tortugas region and throughout the Florida Keys. The focus of this year's cruise was the continued evaluation of the [Research Natural Area](#), a no-take marine reserve implemented in 2007 that encompasses 46% of the waters of Dry Tortugas National Park. Highlights of the 10-day trip included over 850 scientific dives, 220 sites visited, and multiple encounters with large predators such as sharks, goliath groupers, and a sawfish. In addition, a film crew from the [Public Broadcasting Service](#) (PBS) participated in the second half of the cruise and will be producing a documentary entitled *Changing Seas* about the multi-agency collaborative monitoring effort, the Research Natural Area, and Dry Tortugas National Park.

Deep Coral Mission Targets HAPC off Florida Coast. [Diversity, Systematics, and Connectivity of Vulnerable Reef Ecosystems](#) (DISCOVRE) is a four-year multidisciplinary research program that is focusing on understanding the physical oceanography, biology, ecology, genetic connectivity, and trophodynamics of deep coral environments in the Gulf of Mexico (300-1000 m depths) in order to better understand these critical, poorly studied deep-sea habitats. The program has integrated a diverse group of collaborators, including scientists from the U.S. Geological Survey (USGS) and NOAA. It is part of a larger effort involving the Minerals Management Service (MMS), NOAA Ocean Explorer, and TDI Brooks.

The first of four cruises planned for this year occurred from August 6-17 and focused on deep coral habitats of particular concern (HAPC) approximately 45 miles off the coast of Cape Canaveral, Florida. The primary research objectives were to examine and classify deep coral reef habitats and their associated fauna and compare them with non-reef environments. This work involved collecting and identifying organisms associated with these ecosystems, from the tiniest microbes to the largest fishes and invertebrates. The specimens will be used to characterize the biological diversity, (continued on page 4)



Have you seen
our new graphic
identifier?

Take a closer
look and you
may see a
'hidden' layer.

Be on the
lookout as this
new identifier is
incorporated
into our
outreach
materials in the
coming months,
including a new
matching color
scheme for our
Web site and
newsletter this
month.

DID YOU KNOW...

Proposals for project funding via the CRCP Grants Programs are being accepted through various dates in November 2009.

Learn more by reading the [Federal Funding Opportunity](#).



Be a Reef-Hugger

As the Summer boating and diving season ends, please make a point to ALWAYS use a mooring buoy or anchor away from reefs and sea grass beds.

Atlantic/Caribbean continued...



The Johnson-Sea-Link is lifted onto the deck of the R/V Seward Johnson after a dive to collect samples.
Courtesy: Liz Baird, North Carolina Museum of Natural Sciences

population connectivity, and food webs of deep coral habitats. Additional samples of coral were collected to address questions regarding coral reproduction, growth rates, and distribution. Coral will be used as proxies to generate long-term records of past ocean conditions, such as temperature and productivity. Detailed, multi-beam mapping of the deep coral environments off Cape Canaveral were also on the agenda. These maps are essential for planning future cruises as well as characterizing the topographical features that define these ecosystems. In addition to the multibeam sonar, the crew used a sophisticated manned submersible, the [Johnson-Sea-Link](#) (JSL), and a remotely operated vehicle. When the vehicles were not in the water, the researchers sampled the ecosystems with a great variety of methods.

Wednesday, August 12th was 'media day,' where media and special guests joined the researchers and ship's crew aboard the [NOAA Ship R/V Seward Johnson](#). Press included newspaper reporters from the *Orlando Sentinel* and the *Daytona Beach News*, as well as Associated Press reporter, Brian Skoloff, and NBC Nightly News Correspondent, Kerry Sanders. Individuals from



The media and special guests gather to learn about the launch and recovery of the Microlander. Courtesy: Art Howard/ARTWORK

the South Atlantic Marine Fisheries Council, NOAA Fisheries, and the [Florida Fish and Wildlife Conservation Commission's Division of Law Enforcement](#) were on hand to assist in answering questions and represent their respective agencies. The press and other guests arrived by chartered boat in time to see the unloading of samples collected by the JSL submersible that morning. They toured the ship, learned about the research being conducted during the mission, conducted interviews, and then were able to observe a launch of the JSL before departing in the afternoon. The media day resulted in coverage on NBC nightly news as well as in several other media outlets. To learn more about the mission and view additional photos, follow the [daily logs](#) from onboard the ship.

Mutton Snapper Spawning Observed at the Tortugas South Ecological Reserve. Fisheries biologists from the NOAA Fisheries' [Southeast Fisheries Science Center \(SEFSC\)](#) and [Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute \(FWRI\)](#) participated in multi-institution cruises to the Tortugas South Ecological Reserve (TSER) June 8 – 13 and July 7 – 12. Scientists were continuing behavior and telemetry studies on migration patterns of mutton snapper on Riley's Hump, a historical spawning aggregation site in the TSER. Participants included SEFSC scientists from the Miami and Beaufort Laboratories and FWRI's Marathon and St. Petersburg laboratories as well an academic researcher from the [University of South Florida](#).



A subgroup of the mutton snapper spawning aggregation, prior to spawning.
Courtesy: Chris Parsons

Researchers acoustically tagged 20 fish for movement and connectivity studies, which preliminarily indicate that a proportion of adult fish migrate between the regional network of Tortugas reserves. Additionally, thousands of mutton snapper were observed inside the TSER, including the first documented spawning of this species in Florida waters, a positive sign that protective measures are working to restore an historical spawning aggregation eight years after the TSER was established by the Florida Keys National Marine Sanctuary.

Updates from the Pacific Region

Candidate Sites Characterized for Potential Sanctuary Network in American Samoa. NOAA [National Centers for Coastal Ocean Science](#) (NCCOS) scientists recently quantified key ecological attributes of candidate areas under consideration for an expanded network of National Marine Sanctuaries in the Territory of American Samoa. At August 10-13 meetings in American Samoa, NCCOS presented coral and fish data highlighting the relative importance among the candidate sites to several local interest groups including the governor of American Samoa, the [Fagatele Bay National Marine Sanctuary](#) advisory council, [Coral Reef Advisory Group](#), Office of Samoan Affairs, and the American Samoa Fono (the territory's Legislature). The findings were used by Sanctuaries staff and meeting participants to refine a list of preferred candidate sites that will move forward in the National Environmental Policy Act process to expand the sanctuary network in the territory.

Climate Change Workshop for American Samoa. On July 29th, the NOAA [Pacific Islands Regional Office](#) (PIRO), [Coral Reef Advisory Group](#) (CRAG) and [Department of Marine and Wildlife Resources](#) (DMWR) hosted a Climate Change Workshop for local resource educators on basic climate change information and its impacts on American Samoa. The workshop was sponsored by PIRO to bridge the gap between scientists and educators on the topic of climate change. Its objectives were as follows: 1) Provide an overview of basic climate change information to agency education and outreach staff; 2) Understand the specific climate change related impacts on American Samoa; 3) Empower educators to incorporate climate change information into ongoing outreach efforts; and 4) Develop steps forward to introduce climate education to schools, communities, and the general public.

The first session of the workshop was presentations by a panel of experts on topics and pro-



Scientists and educators participated in the recent climate change workshop in American Samoa. Courtesy: Fatima Sauafea-Leau

jects related to climate change and its impacts on land and sea. The second session was an opportunity for the existing education groups to present overviews of their outreach and education activities as well as the target groups they worked with and deliver their outreach and education activities.

During the group exercise, the 32 participants were divided into smaller groups to discuss top priority climate change education and outreach ideas, target groups, messaging, methods of delivering the messages, and who would be working together to make it all happen.

Mesophotic Reef Survey in the Au'au Channel. NOAA Fisheries [Pacific Islands Fisheries Science Center](#) (PIFSC) scientists and their partners from the [University of Hawai'i](#) and State of Hawai'i surveyed a large mesophotic reef complex in the Au'au Channel between the Hawaiian Islands of Maui and Lāna'i to better understand the biodiversity, ecology, and function of deep reef ecosystems. The deep reef complex was detected a couple of years ago by staff from the State of Hawai'i's [Department of Land and Natural Resources](#) during surveys using a remote camera to look for black coral. Found between depths of 75–85 m, these corals constitute some of the deepest reefs in the nation that are dependent upon symbiotic zooxanthellae for nutrients via photosynthesis.



Plate coral and macroalgal community at 78 m depth offshore of west Maui, as viewed from the submersible *Pisces IV*. Courtesy: NOAA Pacific Islands Fisheries Science Center

During the recent cruise aboard the [NOAA Ship Hi'ialakai](#) between July 24 and Aug 2, scientists utilized SCUBA to investigate the coral beds to characterize the habitat and assemblage of fishes. Arrays of oceanographic instruments placed at the study site a year ago were recovered, data stored in them was downloaded, and the arrays were redeployed. In addition to SCUBA, towed camera systems and remotely operated vehicles were used to collect video data. Learn [more](#) on the PIFSC Website.



Coral Reefs support more species per unit area than any other marine environment. Courtesy: Dave Burdick

Even if you don't live near a reef, you can help protect coral reefs in the U.S.A. and around the world

International Updates

Every Act Counts

Don't drag the reef into this.

Use reef mooring buoys when available. Or, anchor in sandy areas away from coral and sea grasses so that anchor and chain do not drag on nearby corals or tear-up sea grass beds. Once broken, corals can take decades or longer to re-develop, and a damaged reef is less able to provide food, habitat and shoreline protection.

Whether you live one mile or one thousand miles from a coral reef, your actions affect the reefs' future – and the reefs' future affects yours. As the natural guardians of our shores, reefs play a vital role in our global ecosystem. With climate change, pollution, and overfishing contributing to coral reef degradation, we can all play a role in protecting our land, sea and sky. And all it takes is a few simple changes to your daily routine.

NOAA Team Conducts Reef Resilience and Climate Change Workshop for Coral Reef Managers in Guam. Coral reef managers from Micronesia participated in a training workshop entitled "Reef Resilience and Climate Change: A Workshop for Coral Reef Managers" held August 17-20 in Tumon Bay, Guam at the Guam Hilton Resort and Spa. Participants included more than 25 experts in coral reef management from Guam, the Commonwealth of the Northern Mariana Islands, Palau, the Republic of the Marshall Islands, and the Federated States of Micronesia (Kosrae, Chuuk, Pohnpei, and Yap). They learned about the impacts of climate change in Micronesia, how to respond to mass coral bleaching events, the principles of resilience and incorporating resilience into management and marine protected area (MPA) design, NOAA early warning systems available to managers to predict when bleaching may occur and how to communicate about the threats to coral reefs. There was also a focus on the human element of the issues surrounding climate change and mass bleaching with information on the socioeconomic impacts of these events, how to monitor these impacts and the concepts of social-ecological resilience.

The main goal beyond communicating the latest climate change science and management strategies is for participants to strengthen partnerships with their fellow managers and share strategies, local management actions and lessons learned. Tangible outcomes will include draft



Participants listen to a presentation about climate change and coral disease during the workshop. Courtesy: Britt Parker

bleaching response plans and MPA designs that emphasize resilience to climate change.

The workshop was sponsored by the NOAA [Coral Reef Conservation Program](#) with support from [The Nature Conservancy](#), NOAA [Coral Reef Watch](#), NOAA National Marine Fisheries Service [Pacific Islands Regional Office](#), [Guam Department of Agriculture](#), [Guam Environmental Protection Agency](#), [Guam Coast Management Program](#), the [University of Guam Marine Laboratory](#) and the [East West Center](#) in Honolulu, Hawaii. The NOAA instructors were guests on a live radio call-in show in Guam and interviewed by the Pacific News Center (TV Channel 7). Coverage of the workshop also was highlighted in both print and online news outlets including the [Saipan Tribune](#), the [Pacific News Center](#), the [Marianas Variety](#) and [Guam News Factor](#).

New Data in CoRIS

Product Name	Description
Pagan Island Gridded Geomorphology data files Link to sample metadata for this product	The geomorphological data layers of substrate, slope, rugosity, and bathymetric position index (BPI) produced at the Pacific Islands Benthic Habitat Mapping Center (PIBHM) are derived from multi-beam bathymetry. These data sets are for the shelf and slope environments of Pagan Island.
FBSAD Recruit and Predator Reef Fish Belt Transect Surveys and Reef Fish-Habitat Quadrat Surveys at Hawaii, Oahu and Midway 2006-2007 Link to sample metadata for this product	Datasets include taxonomic and functional characterizations of reef habitat that complement the recruit and predator reef fish density estimates provided by companion surveys. These data represent the second and third surveys in a multi-year (spring-summer seasons only) project using in situ diver observations at sites of differing habitat structure, to descriptively test predictions relating to the use of specific habitats by the juveniles of various species of reef fishes in Hawaii.

(continued on page 7)

New Data in CoRIS Continued...

Product Name	Description
Non-indigenous Marine Species in Kaneohe Bay, Oahu, Hawaii in 1999-2000 (NODC Accession 0001053) Link to sample metadata for this product	The 1999-2000 surveys observed or collected a total of 786 taxa including 617 species, more than six times the number of taxa previously reported by any single survey of biota in the bay. Of these, 59% of the total taxa and 51% of the named species were new reports for Kaneohe Bay after consideration of nomenclatural name changes.
Non-indigenous Marine Species at Waikiki and Hawaii Kai, Oahu, Hawaii in 2001-2002 (NODC Accession 0001061) Link to sample metadata for this product	A total of 925 taxa including 749 species were observed or collected in Waikiki, and 384 taxa including 317 species at Kuapa Pond-Maunalua Bay. Of these 52 species were designated introduced or cryptogenic (collectively termed NIS) at Waikiki, for an NIS component of 6.9% of the total species identified for the 15 stations. By comparison 58 NIS were observed or collected at Kuapa Pond-Maunalua Bay amounting to an NIS component of total species of 18%.
Assessment of Invasiveness of the Orange Keyhole Sponge <i>Mycale armata</i> in Kaneohe Bay, Oahu, Hawaii Based on Surveys 2005-2006, (NODC Accession 0033380) Link to sample metadata for this product	This dataset represents year two of a study to determine <i>Mycale armata</i> 's distribution and abundance throughout Kaneohe Bay, its growth rates on permanent quadrats, and whether mechanical removal would be an effective management technique for its control.
High Resolution Imagery of Coral Reef Systems Prior to and During Suspected Bleaching Events Link to sample metadata for this product	These datasets are a collection of imagery of from selected coral reef systems. Each dataset consists of pairs of imagery where one image was acquired during a suspected bleaching event. The second is a control image taken at some point prior to the event. The images are co-located and radiometrically calibrated for comparison.
Near Shore Wave and Current Data fronting the Waikiki Natatorium August 2007 (NODC Accession, 0044080) Link to sample metadata for this product	Field data collection was conducted during 23-29 August 2007, in the vicinity of the Natatorium, a World War I memorial in Kapiolani Park, Honolulu, Oahu, Hawaii. Three bottom mounted instruments were deployed to measure directional waves and current profiles.
Scaled photographs of surf over the full range of breaker sizes on the north shore of Oahu and Maui, Hawaiian Islands (NODC Accession 0001753) Link to sample metadata for this product	Digital surf photographs were scaled using surfers as height benchmarks to estimate the size of the breakers. Historical databases for surf height in Hawaii are recorded in Hawaii Scale Feet (HSF), and these photographs have been used to translate HSF to trough-to-crest heights.
Fish Species Observed in the Hawaii Exclusive Economic Zone from the 1750s through 2003 (NODC Accession 0001486) Link to sample metadata for this product	A list of Hawaiian fish species was created from contemporary and historical documents dating back to 1758. For each species, the name of the person who described and first named the species (according to The International Code of Zoological Nomenclature) along with the date of the description, the family, the status (indigenous, etc.), the range along the Hawaiian archipelago for the sightings, and miscellaneous notes are given.



As part of SeaWeb's Too Precious to Wear Campaign, top New York and Los Angeles designers created an ocean-inspired jewelry collection that celebrates the ocean without harming it. This collection launched in NYC in February.



Be a Reef-Hugger

Corals are already a gift.
Don't give them as presents.

Announcements continued...

will be launched soon. However, there is a new contact [email](#) for the Secretariat.

The incoming Secretariat congratulates the United States and Mexico for their work related to coral reef conservation and the accomplishments during their term. A draft version of the current Secretariat's plan of action for its term is available [online](#).

Publications

Vroom, Peter S., *Jacob Asher, Cristi L. Braun, Edmund Coccagna, Oliver J. Vetter, Wendy A. Cover, Kristin M. McCully, Donald C. Potts, Amarisa Marie, Cynthia Vanderlip (2009) Macroalgal (*Boddoea composita*) bloom at Kure and Midway Atolls, Northwestern Hawaiian Islands. *Botanica Marina* 52: 361-363.

NCCOS Work Featured in USVI Public Awareness Campaign. Assessment findings and maps completed by NOAA's [National Centers for Coastal Ocean Science](#) (NCCOS) researchers are featured in a new public awareness campaign for the U.S. Virgin Islands (USVI) entitled "[Waves of Change: A Resource for Environmental Issues in the U.S. Virgin Islands](#)."

The report is intended to raise public awareness among citizens and politicians about critical environmental issues, including the condition of the area's coral reef ecosystem, in the USVI.

NCCOS work published in the campaign includes: a summary of the invasive lion fish threat, findings from the [Buck Island Reef National Monument](#) assessment, as well as benthic habitat and marine protected area maps.

The next ICRI General Meeting will be held in Monaco from January 12 – 15, 2010 and will include a special session on the Caribbean.

More information about the composition of the current Secretariat and the ICRI meeting in Monaco will be available on the ICRI Website in mid-September.

[Subscribe to this publication](#), the monthly e-newsletter of NOAA's Coral Reef Conservation Program .

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We're on the Web!
<http://coralreef.noaa.gov>

The CRCP supports effective management and sound science to preserve, sustain and restore valuable coral reef ecosystems.

We value your feedback. Feel free to [email](#) us comments or suggestions.

