Spring 2010

CORAL CURRENT

The Newsletter of the Coral Reef Alliance

CORAL Web Portal Promotes Citizen Science

We're excited to report that CORAL's new community-based Coral Reef Monitoring Data Portal has officially launched in Hawaii. This new online resource will support ongoing volunteer monitoring efforts while increasing public involvement, awareness, and a sense of stewardship around Hawaii's coral reefs and marine environment.

Working in partnership with the Hawaii State Department of Land and Natural Resources' (DLNR) Division of Aquatic Resources (DAR), and with the support of NOAA and the Hawaii Tourism Authority, CORAL has developed a web portal to integrate citizen science and reef monitoring to protect the ecological health of Hawaii's reefs.

The web portal, accessible at **http://monitoring.coral.org**, provides a one-stop shop for volunteers to enter data that corresponds to a variety of community-based monitoring protocols. Volunteer data collection is focused on water quality monitoring, DAR's herbivore grazing surveys, and special observations reported by divers and snorkelers regarding the presence of large, terminal parrotfish and large schools of herbivorous fish.

Volunteers are also encouraged to provide information on individual community roi (peacock grouper) eradication efforts. Roi, which were introduced to Hawaii's waters in 1956 to improve sportfishing, have become widespread and are ecologically impacting the reef ecosystem.

This new data portal project is intended to support and expand previous community-based reef conservation efforts in Hawaii and also act as a catalyst for more opportunities for collaboration.

Parrotfish (*uhu*), the largest grazing fish on Hawaii's reefs, play a critical role in controlling algal growth on the reef
Photo by James Watt

For example, a new Marine Managed Area (MMA), the Kahekili Herbivore Fisheries Management Area, was recently established to protect critical grazing fishes and urchins in the region in order to control algal overgrowth of the reef habitat. This reef area has shown signs of stress and degradation, but it is hoped that through these management actions, reef conditions will improve.

The Kahekili Herbivore Enhancement Area (HEA) Project, managed by DAR, incorporates fish grazing observational protocols in order to learn more about ecological interactions on the reef and assess the impact of the new MMA. The data collected via volunteer efforts in connection with CORAL's new web portal will support this project and assist managers in their efforts to better understand Hawaii's coral reef ecosystem.

According to Darla White, Special Projects Coordinator with the Hawaii DLNR Division of Aquatic Resources, these data "fill in knowledge gaps and paint a clearer picture of the complexities of which science still knows remarkably little."

Informed volunteer networks, like those which will be connected through CORAL's web portal, can serve as the "eyes and ears" of the local marine environment and will often provide the first indications of changes to a system. In addition to the value of early detection, it is important to maintain ongoing monitoring efforts to compile data and document resource conditions.

Volunteers who are interested in participating in the web portal project are encouraged to sign up for a membership by emailing **monitoring@coral.org**. CORAL and our local partners will begin a series of training workshops this spring to build awareness around the portal and enlist volunteers.

Working Together to Keep Coral Reefs Alive

The Coral Reef Alliance (CORAL) unites communities to save coral reefs. We help the people who live near reefs protect their fragile resources by providing the means to develop local projects that save coral reefs and benefit communities.

CORAL Exceeds Board Challenge Grant Goal!

CORAL would like to extend a huge thanks to everyone who supported the recent year-end Board challenge grant. We set the bar high—trying to raise $100,000 in just over two months—and our donors responded. In fact, we were able to raise over $128,000 for our programs in Belize, Fiji, Hawaii, Honduras, Indonesia, and Mexico! That—plus the $100,000 Board match—will go a long way in advancing our mission to unite communities to save coral reefs. Thank you!

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"Working Together to Keep Coral Reefs Alive"

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For comments, questions, or contributions to *CORAL Current*, please email us at communications@coral.org.

BREAKING NEWS FROM CORAL'S PROJECT SITES

Maui's North Shore, Hawaii
Photo by Liz Foote

MESOAMERICA

MEXICO: CORAL expanded its Reef Leadership Network to Playa del Carmen and Riviera Maya, with six new Reef Leaders trained to conduct Environmental Walk-Through evaluations with local marine tourism providers. Copies of a "comic book" version of the *Voluntary Standards for Marine Recreation*, produced through a CORAL microgrant in Mexico, were brought to the International Coral Reef Initiative meeting in Monaco this past winter. Several stakeholders attending the meeting are now interested in replicating the book in their own countries.

BELIZE: Working closely with the Belize National Coral Reef Monitoring Network, CORAL has integrated a volunteer coral bleaching monitoring component into our Sustainable Marine Recreation (SMR) trainings. CORAL is working to spearhead a community volunteer program to monitor coral bleaching in sites between the Bacalar Chico Marine Reserve and the Hol Chan Marine Reserve off of San Pedro. The National Oceanic and Atmospheric Administration will use the local data to confirm its satellite imagery predictions and inform future coral reef management.

HONDURAS: CORAL conducted SMR training to over sixty water taxi operators servicing Roatan cruise ship ports. The recently completed Roatan Marine Park business plan was presented to the Park's board and staff, and is currently being implemented. Outreach efforts continue with the goal of expanding Roatan's marine protected area boundaries to include the Cordelia Banks. CORAL is working alongside the Roatan Marine Park Association and the Spiny Lobster Initiative to create a sustainable seafood checklist and guide to improve sustainable fishery management.

INDO-PACIFIC

FIJI: As the result of several tourist-focused village visits, kicked off by CORAL's dive trip to the Kubulau District last fall, the Kiobo Village has recently opened a village bank account to deposit the profits generated from the visits. After paying their village tour guides, the village was able to deposit FJ$500—a substantial investment in the future of the community. CORAL is partnering with SeaWeb to trial a new Community Coral Reef Leadership Network program in the Kubulau District.

PAPUA NEW GUINEA (PNG): Growing economic and conservation challenges have made it difficult for CORAL to maintain an effectively-managed CRSD program in our Madang Province project site. In order to reassess our approach and strategy, CORAL has suspended work in PNG until the right set of conditions are put in place to ensure our conservation results. In the interim, we will continue to focus our efforts on strengthening coral reef communities in our neighboring project site in Indonesia, while also exploring opportunities to expand our programs into new coral reef destinations.

INDONESIA: CORAL continues to expand the "My Small Library" project in Raja Ampat, which provides educational materials to area youth through a new community patrol program. CORAL is also conducting outreach to potential conservation partners in Bali.

HAWAII: CORAL, in partnership with the County of Maui and the Hawaiian Islands Humpback Whale National Marine Sanctuary, helped conduct the Ocean Protection and Cultural Awareness (OPACA) training for local businesses operating on county beaches. This training was the first in a series aimed at educating over 200 staff of local water sports companies.

Coral Reefs Are the Ocean's Species Factories

Coral reef scene, Papua New Guinea
Photo by Jeff Yonover

A new study published in the journal *Science* makes the case for protecting coral reefs even more compelling. Not only do reefs provide refuge for an amazing number of diverse species, but scientists are now finding that coral reefs are playing an active role in the generation of *new* species.

According to Wolfgang Kiessling, a scientist from Humboldt University in Germany and lead on a groundbreaking new study on marine biodiversity, species that live in coral reefs give birth to new species more rapidly—50 percent faster—than their sister species living outside of coral reefs.

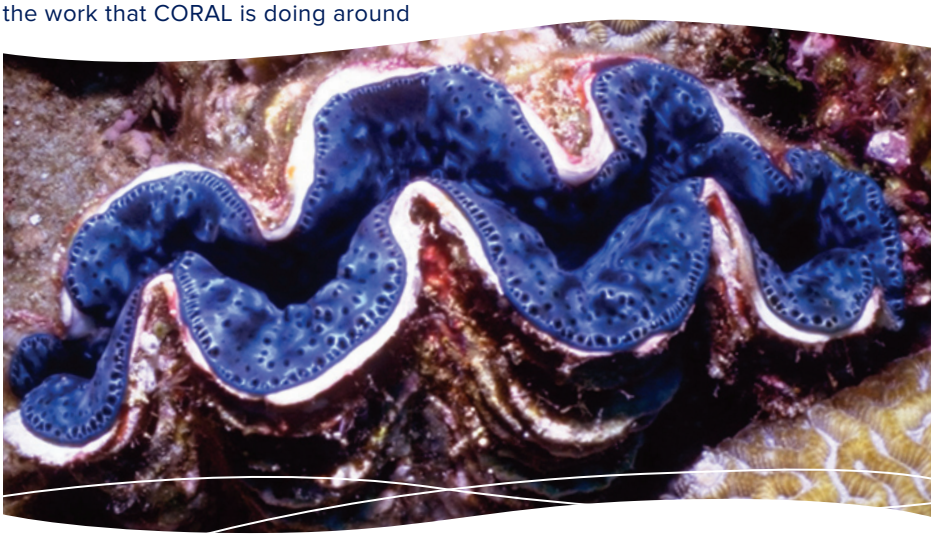
Kiessling and his colleagues analyzed a fossil record of more than three million specimens over the last 540 million years in order to better understand whether new genera first appeared within coral reef habitats or outside of them. They examined the earliest fossil records of benthic (bottom-dwelling) creatures dating back to the Cambrian explosion.

What they found is that these fossilized remains told an interesting story about the animals' original habitats. The research revealed that not only did corals preferentially evolve in reefs, but so did other organisms such as clams and snails. Reefs were also found to export diversity to other marine habitats. Down the line, animals that originally evolved on reefs often ended up moving away and contributing to biodiversity in other ecosystems.

The researchers proposed that the reason reefs are such "evolution hotspots" has to do with the many microhabitats created by the complexity of the reef structure. The nooks and crannies found along the reef provide opportunities for animals to discover new niches.

This latest research adds to a growing list of benefits associated with coral reef ecosystems: coral reefs are also responsible for providing life-saving medicines, coastal storm protection, sustainable food sources, and roughly $400 billion in annual global income. And, although they cover less than one percent of the ocean floor, coral reef ecosystems support nearly a quarter of all marine species.

Kiessling and his colleagues' study further underscores the importance of the work that CORAL is doing around the world to protect coral reefs. As this latest study points out, coral reefs are proving to be an even more precious resource through their role in generating diversity in the oceans—diversity that is critically important for the continuation of marine ecosystem services. By building networks of effectively-managed marine protected areas, CORAL is alleviating local threats in order to support healthy, resilient coral reef ecosystems that will continue to replenish and support ocean life. There is much more to learn from these amazing ecosystems, and this knowledge is critical to our understanding of how to preserve their benefits for future generations.



New research shows that many marine species, including clams, have preferentially evolved in coral reefs
Above: Giant clam (*Tridacna maxima*), Australia
Photo by Chuck Savall

Roatan Marine Park Business Plan Takes Shape

Back in the fall, we reported that CORAL was creating a new business plan for our Honduras partner, the Roatan Marine Park. As you may recall, the park was in need of a strategic plan to help prioritize and finance its conservation efforts. We are happy to report that the completed business plan is now in the capable hands of the Marine Park Association and is being put to good use.

We caught up with Ian Hepworth, who recently traveled to Honduras to meet with the marine park's board and staff to review the business plan and discuss the proposed initiatives. Ian, a student at the University of California's Haas School of Business, spearheaded the development of the business plan while working with CORAL and the Roatan Marine Park during a summer fellowship sponsored by the Packard Environment Fellows Program.

Ian's recent visit sparked thoughtful discussions on how to implement the new business plan in order to further the marine park's future conservation work.

One of the first orders of business was to implement the marketing and promotions component of the plan to bring greater awareness about the park and its activities to visitors and the surrounding community. The marine park is currently conducting outreach to potential partners in the area based on a survey of local hotels and other businesses that indicated strong interest in collaboration.

The marine park is also researching and developing new and more sustainable revenue sources. To increase the attractiveness of paying a park fee to non-diving visitors, plans are underway to set up a cross-promotional program with nearby restaurants and dive shops to offer store discounts and additional benefits to marine park users.

The marine park is also enlisting the help of a new communications and marketing expert to help simplify existing signage and brochures in order to create clear, crisp messages to communicate park rules to tourists.

These exciting developments are just the beginning for the marine park association's new strategic vision. With this important business tool in hand, the park now has the necessary framework to build a solid economic future.

Ian Hepworth and CORAL Field Manager Jenny Myton with members of the Roatan Marine Park Association aboard the park's patrol boat
Photo by CORAL Staff

CORAL Joins the Fiji Locally-Managed Marine Area Network

CORAL Field Representative Moala Tokata'a inspects the corallites of a piece of dead coral during the FLMMA-sponsored coral identification training in Suva, Fiji
Photo by CORAL Staff

CORAL was recently accepted as a member of the Fiji Locally-Managed Marine Area (FLMMA) Network.

The FLMMA Network brings together the leaders of community-based marine conservation projects so that they can learn collectively from one another's successes and shortcomings to improve conservation outcomes in Fiji.

This new partnership will allow CORAL to share knowledge, skills, and resources with other organizations in order to enhance marine management activities and increase conservation impact in our Fiji project sites and across the country.

CORAL's staff instantly benefitted from this new membership by attending a coral identification training at the University of the South Pacific in Suva, Fiji. The course, sponsored by the David and Lucille Packard Foundation and the FLMMA Network, taught attendees how to identify thirty different varieties of corals within Suva Harbor and tested a new taxonomic tool called the CoralFinder, which is designed to aid in coral inventory surveys.

CORAL is honored to join the FLMMA Network and looks forward to future opportunities to strengthen marine conservation efforts in the region.

A Look Back with CORAL Board Member Elizabeth Ulmer

Having served for over a decade on CORAL's board of directors, Elizabeth Ulmer has watched the organization grow from a small, dedicated group of divers into the only international organization working exclusively to unite communities to save coral reefs.

Elizabeth Ulmer with Executive Director Brian Huse at CORAL's 15th anniversary celebration in San Francisco
Photo by Aubrie Pick for Drew Altizer Photography

When asked what has changed at CORAL over the past ten years, Elizabeth said simply: its impact. CORAL started small, but over time—and by learning at each step along the way—we developed a systemized approach to transforming communities into active and effective reef stewards. Elizabeth has watched CORAL's impact increase exponentially through this approach. What hasn't changed about CORAL, she notes, are the core characteristics that got us to this point—we remain nimble, lean, open, expert, creative, and mission-focused.

Elizabeth's love for the ocean developed early on in her life. Growing up in Houston, Texas, she has fond memories of spending her summers sailing, swimming, and waterskiing in the warm waters of Galveston Bay and the Gulf Coast. She credits her love of the water to her mother, who taught her how to enjoy every aspect of the coast.

On her first snorkeling trip at age ten, Elizabeth remembers putting her mask in the water of Hanauma Bay in Hawaii and being utterly stunned by the beauty and wonder of the underwater world. She has never lost this magical feeling, even though she has been scuba diving at every opportunity since she was certified at age sixteen.

Elizabeth put her passion for the environment to work straight out of law school when she took a job with the Sierra Club Legal Defense Fund (now known as Earthjustice) in Washington, D.C. She got hooked on the idea of making a difference for something she loved, and since then has worked for non-profit environmental groups in legal and fundraising roles.

As a CORAL Director, Elizabeth has been instrumental in supporting and shaping the organization. Through times of growth and restructuring, she has consistently offered valuable advice and a keen perspective on how to further CORAL's mission. But that is not all. As important, Elizabeth brings to her work with CORAL a joyful spirit and energy that inspires her fellow board members. We are very grateful for her dedication.

Help Pass Critical Coral Reef Legislation

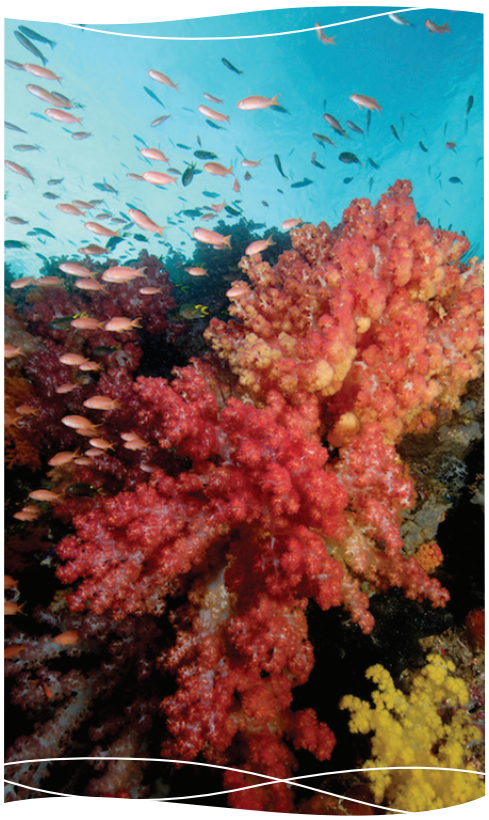
Coral reef legislation is currently making its way through the U.S. Congress and, if passed, would help to protect coral reefs globally.

Known as the Coral Reef Conservation Act Reauthorization and Enhancement Amendments of 2009, this important legislation would reauthorize and amend the Coral Reef Conservation Act of 2000 and ensure that remaining coral reef conservation grant funds are awarded to crucial projects, including monitoring and assessment, research, pollution reduction, education, and technical support.

Last summer, CORAL played a pivotal role in drawing attention to this critical legislation by creating a coalition of forty-four marine conservation and stakeholder groups and over one hundred marine scientists to ask the White House and the U.S. Congress to support the bill, as well as other important measures for coral reef protection.

Following this action, the bill was passed by the House on August 23, 2009, and was introduced in the Senate by Senator Daniel Inouye (HI) on Dec 9, 2009. It now has five cosponsors: John Kerry (MA), George LeMieux (FL), Bill Nelson (FL), John Rockefeller (WV), and Olympia Snowe (ME).

Additional cosponsors are needed to make this bill a priority in the 111th U.S. Congress. You can help by contacting your senators and asking them to cosponsor this important legislation. Visit **www.coral.org/coral_bill_action** to use our "Take Action" tool kit, which provides information and key messages for contacting your senators. Together, we can make a difference in helping to save the oldest biological community on the planet!



Reef scene in Raja Ampat
Photo by Dennis Liberson

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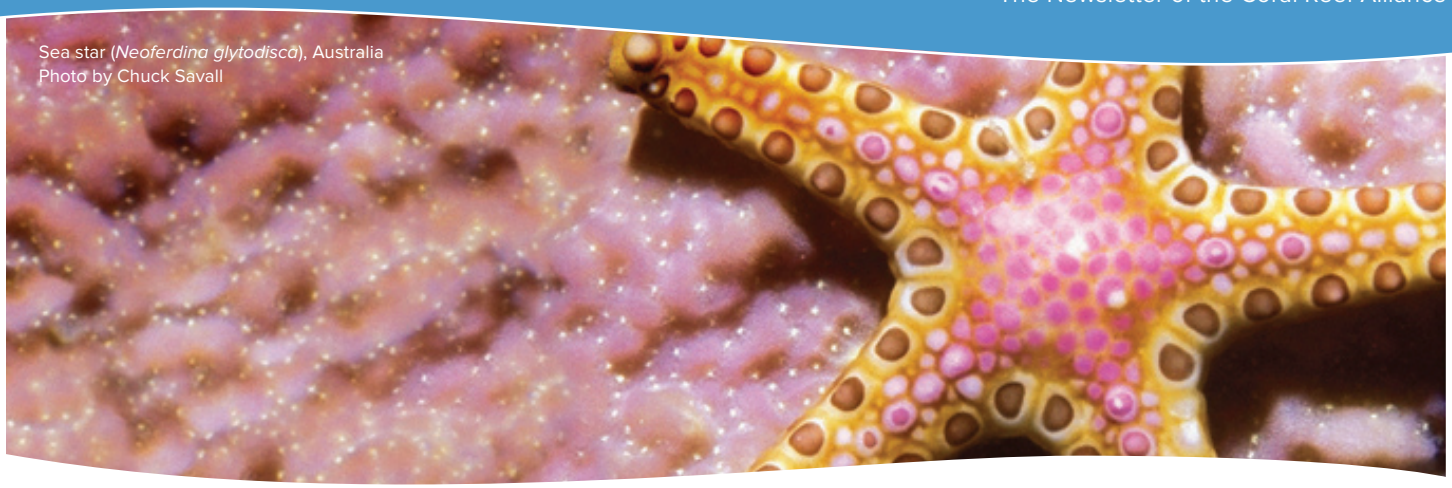

Sea star (*Neoferdina glytodisca*), Australia
Photo by Chuck Savall

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When you make your annual membership contribution, you'll continue to receive several wonderful benefits, including quarterly issues of *CORAL Current*. You'll also be renewing your commitment to protecting one of our planet's most valuable—and vulnerable—ecosystems.

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We look forward to your continued support!