CORAL CURRENT The Newsletter of the Coral Reef Alliance

CORAL Restores Mangrove Habitat in Belize

The San Pedro coastline is getting an environmental makeover, thanks to the hard work of CORAL and our partners in Belize. A few months ago, CORAL sponsored a mangrove reforestation workshop for a group of local conservation experts and community volunteers. Participants planted nearly a hundred mangroves in three high-priority locations along the coast.

We are happy to report that our seedlings are making excellent progress-a testament to the effectiveness of the mangrove reforestation method we sponsored. Bob Riley of Mangrove.org taught our workshop participants to plant each mangrove propagule, or seedling, inside a specialized encasement device that protects the young plant from wind and wave energy as it grows. The temporary encasements allow the mangrove seedlings to survive on disturbed shorelines where difficult environmental conditions would normally prevent them from maturing. Once the protected plants have developed strong enough root and branch structures, volunteers will remove the encasement devices, and the mangroves will grow into mature reproductive trees.

Our mangrove reforestation efforts are addressing an alarming trend taking place throughout San Pedro. The increasing demand for coastal property is leading developers to clear more and more mangrove wetland habitat to provide land for expanding coastal communities.

Why has CORAL taken the lead in facilitating a mangrove project? Mangroves play a crucial role in maintaining healthy, vibrant coral reefs. The tangled labyrinths created by mangrove roots act as a breeding ground and nursery for reef species. They also prevent coastal erosion much more effectively than man-made alternatives like sea walls. In addition, mangroves act as a natural water purifier, keeping harmful pollutants and sediments from reaching reefs. And, if that wasn't enough, mangroves also sequester carbon very efficiently. Researchers consider them a vital component in global efforts to mitigate climate change, one of the greatest threats to coral reefs.

As our new mangrove seedlings continue to mature over the next six months, a local volunteer will monitor the three pilot sites on a regular basis to evaluate seedling growth and ensure that the sites have not been damaged.

CORAL will utilize the pilot sites to educate coastal developers and the local community about the importance of mangrove habitat and the numerous benefits these trees can provide. In the future, CORAL will evaluate ways to replicate this successful program at other locations within Belize and globally.



Uniting Communities to Save Coral Reefs

Spring 2011

The Coral Reef Alliance (CORAL) unites and empowers 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.



Mangrove trees thrive in brackish, nutrient-rich waters along the coast of Belize



Mangrove workshop participants plant new propagules in San Pedro

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



MESOAMERICA

MEXICO: To date, CORAL has trained approximately ninety percent of Cozumel's marine operators in sustainable tourism principles. • CORAL and our local partners met with over thirty marine tourism businesses in Cozumel to discuss strategies for encouraging companies to adopt sustainable business practices. Following the meeting, several companies signed up for—and have since completed—CORAL's comprehensive environmental performance assessment program.

BELIZE: CORAL is engaged in expert discussions and consultations regarding revision to the national Fisheries Act. This two-year project will develop a modern Fisheries Act for Belize. • CORAL recruited two new Coral Reef Leadership Network members to conduct environmental performance assessments with marine tourism businesses in Placencia. • The mayor and town council members of San Pedro endorsed our mangrove restoration project, marking the first time the local government has participated in a collaborative conservation project.

HONDURAS: CORAL trained eleven members of ICF—the governmental institution responsible for the administration of all Honduran protected areas—in sustainable marine recreation and open water scuba skills. The ICF members, including the prime minister, were given a tour of Cordelia Banks and expressed an interest in local coral conservation efforts in the region. • CORAL coordinated a regional Coral Reef CSI workshop in Roatan to improve coral reef criminal investigation techniques and law enforcement.

INDO-PACIFIC

FIJI: As part of the Community Educators Network program, CORAL and our nonprofit partners taught residents of the Kubulau District on climate change adaptation, mangrove ecosystem maintenance, spawning aggregations, and the Fiji Islands Environmental Management Act. • Production of a new documentary showcasing CORAL's community conservation work in the Kubulau District is now complete. The program is scheduled to air nationally on the Fiji One television channel in April.

INDONESIA: To prepare for our upcoming global reef resilience training in Bali this May, CORAL and our global partners are organizing a rigorous schedule of classroom presentations, field excursions, and break-out sessions. The curriculum will focus on best practices and strategies for building a global network of reef resource managers who are prepared to respond to climate change. We have invited reef managers from the Western Indian Ocean, South and Southeast Asia, and the Pacific region to participate.

U.S. STATES & TERRITORIES

HAWAII: Aston Hotels and Resorts LLC has included the "Ten Things You Can Do to Save Coral Reefs" pledge—developed as part of the West Hawaii Voluntary Standards project—in its 2011 *Aloha Book*. This popular coupon booklet will be distributed to over half a million hotel guests this year. • Four of the six Outrigger properties on Maui have agreed to place CORAL's reef etiquette educational materials in each of their hotel guest rooms.

SPRING 2011



Scientists have only scratched the surface when it comes to studying the planet's coral reefs. In fact, only a small percentage of the world's reefs have actually been monitored over any length of time. While we know that coral reefs are seriously threatened, specific information about which threats affect which reefs is limited, making conservation efforts challenging.

Reefs at Risk Revisited, a high-resolution update of the World Resources Institute's original 1998 global analysis Reefs at Risk, attempts to bridge this information gap by identifying the location and spread of threats to coral reefs around the world. Just as the 1998 report served as a call to action for addressing coral reef degradation, this latest report demonstrates the urgency of the problem and encourages better management practices and policies to protect fragile reef ecosystems.

The new analysis is the result of a more than two-year global collaboration among the world's leading scientists and conservation experts, including CORAL's own Rick MacPherson and Heidi Williams, who contributed their input and expertise. The report utilizes the latest satellite imagery to produce data that is sixty-four times more detailed than the reef maps published in the 1998 version. It also contains a more detailed assessment of the effects of climate change and ocean acidification on coral reefs.

So how did coral reefs fare in the most recent analysis? Unfortunately the news is not good. These vulnerable ecosystems continue to suffer from multiple threats, on various levels, that when compounded lead to the widespread weakening and mortality of corals.

Using data collected from more than fifty sources, the analysis found that approximately sixty percent of the world's coral reefs are under immediate and direct threat from one or more of the following local pressures: overfishing and destructive fishing, coastal development, watershedbased pollution, and marine-based pollution and damage. When thermal stress is factored in, the overall threat rises to seventy-five percent of all reefs.

The report also used models to predict future scenarios if we continue with a "business as usual" approach. If greenhouse gas emissions continue on current trajectories and local stresses are not addressed, it is estimated that roughly half of reefs globally will experience thermal stress severe enough to induce bleaching in most years during the 2030s. During the 2050s, this percentage is expected to grow to more than ninety-five percent. The combined impacts of ocean warming and acidification will increase the threat levels on more than half of all reefs by 2030.

Despite the troubling picture painted by this analysis, the report offers reason for hope. Reefs around the world have proven capable of rebounding even after serious damage, and our collective ability to manage and protect reefs from local pressures has improved. In fact, since 2000, there has been a fourfold increase in coral reef protected areas around the world.

With new tools, greater public understanding, and more active local involvement, resource managers and conservationists are finding effective ways to protect and sustainably manage coral reefs. These strategic efforts are making a difference, as we've seen in CORAL's project sites, and will buy time for reefs while we ultimately tackle the global threat of climate change.

To read the full report, visit www.wri.org/reefs.

Which Reefs Are at Greatest Risk from Local Pressures?	
Location	Percent Threatened
Southeast Asia	95 %
Atlantic Region	75 %
Indian Ocean	65 %
Middle East	65 %
Pacific Region	50 %
Australia	14 %

New Guide Promotes Sustainable Seafood Choices

With global fish stocks in decline, scientists estimate that nearly seventy-five percent of the world's fisheries are fished to capacity or overfished. In the Caribbean, populations of fish species such as the goliath grouper and Nassau grouper have collapsed, and other commercially important species like the Caribbean spiny lobster and queen conch are at risk.

As fishery stocks deteriorate and collapse, coral reef ecosystems are put in jeopardy, too. Numerous species that humans target for food also play critical roles in maintaining the ecosystem balance on coral reefs. For example, herbivores like parrotfish regulate the competitive relationship between algae and corals. When too many herbivores are removed, algae begin to overtake corals, depriving them of essential sunlight and causing their decline.

In order to protect coral reefs and promote responsible seafood consumption, CORAL teamed up with some of our local partners, including the Roatan Marine Park, Utila Center for Marine Ecology, and the Spiny Lobster Initiative, to publish a new sustainable seafood guide for the Bay Islands of Honduras. The guide uses a simple system to identify species that are safe for consumption, species that may require additional caution, and those to avoid altogether. For a species to qualify as "sustainable," it must be caught in a way that considers the long-term viability of the harvested population and the general health of the ocean.

The seafood guide is intended for a wide range of audiences, including individual consumers, restaurant buyers, and commercial fish suppliers. The CORAL Reef Leadership Network (CRLN) will conduct a targeted educational campaign to ensure that key members of the seafood industry know about the guide and how to use it.

The CRLN will train the owners, management, and staff of Bay Islands restaurants on how to sustainably buy, sell, and consume seafood products. Trainings will highlight the importance of considering seasonality, length restrictions, and capture methods when determining which species to purchase. Participating restaurants will receive an educational poster to display for concerned customers and to indicate their participation in the program. The CRLN will also train local fishermen on the latest fishery laws and the consequences of unsustainable fishing practices.

The new sustainable seafood guide will allow retailers, restaurants, consumers, and fishermen to play an important role in protecting fish stocks, reef habitats, and the livelihoods that depend on them. The guide will be available on the Roatan Marine Park's website in late April. Visit www.roatanmarinepark.com to download a copy.



Restaurants display this poster to indicate their participation in the Responsible Seafood Guide program

WHAT IS SUSTAINABLE SEAFOOD?

For a fishery to be sustainable, fish species must be:

- Taken from a healthy population
- Caught using methods that do not harm marine life or the environment
- Caught using methods that do not harm fishermen
- From fishermen or fisheries that are environmentally aware and responsibly managed
- Caught using bait that does not have any negative impact on the environment



New Field Office in Fiji

Our new Fiji field office opened in February! Centrally located on Ma'afu Street in Suva, the office is in close proximity to nine other environmental nonprofit organizations. The convenient location will facilitate greater collaboration among partners and will ultimately strengthen CORAL's presence in the community.

Heidi Williams, our Fiji Field Manager, is delighted by the new space. "It's wonderful to have a central base where we can interact with partners and community members to coordinate our conservation projects."

CORAL Reef Donor Spotlight: Heather Titcomb Morley

Heather Titcomb Morley has always appreciated nature. As a Montana native, she enjoys the outdoors and advocates on behalf of environmental issues such as grizzly bear habitat protection. It wasn't until last year, though, that she discovered a new environmental cause that is now near and dear to her heart—coral reef conservation.

"It all started with the saltwater fish tank that my husband gave me on my birthday last year," she recalls. "I became fascinated with my reef tank and was eager to learn more about coral reefs and marine life."

Heather joined an online reef forum for fish keepers and began her research. She was alarmed to learn about destructive collection practices, like cyanide fishing, that cause irreparable harm to marine organisms and reefs. The more she read, the more she felt compelled to find a way to help.

Heather's online research led her to CORAL. She was particularly drawn to our educational work with tourists in Hawaii, where she has vacationed many times. Having snorkeled in the waters of Maui, Lanai, and the Big Island, Heather has a personal connection to Hawaii's reefs. She believes that tourists are often unaware of how their marine recreation activities can negatively impact reefs during their visit.

Inspired by CORAL's "Adopt a Sign" program, Heather and her family gave CORAL a donation to fund the manufacture and installation of a new reef etiquette sign on the island of Kauai. The interpretive sign will educate visitors about how to minimize harmful impacts on the reef.

"I am happy to help CORAL raise awareness for the protection of coral reefs," said Heather. "These fragile ecosystems sustain life, and the more we can all do to preserve them, the healthier our oceans will be."



Heather Titcomb Morley with her husband Matt on the island of Lanai Photo courtesy of Heather Titcomb Morley

To learn how you can help sponsor a reef etiquette sign, visit www.coral.org/hawaii_reef_signs.

Coral Reef CSI Joins CORAL



Coral Reef CSI workshop participants in Roatan, Honduras Photo courtesy of Dave Gulko

Prosecuting the perpetrators of vessel groundings, destructive fishing, illegal extraction, and other activities that damage coral reefs is an important element of effective protection. However, it's also a challenging prospect, especially because the evidence is located underwater. Few marine protected areas have field investigators who are equipped to handle these cases.

Luckily, the Coral Reef CSI program trains natural resource investigators to do just that. Using forensic science techniques modified for use underwater, Coral Reef CSI provides resource managers with the tools, strategies, and specialized training required to collect underwater evidence that will stand up in court. The program has now trained over 330 marine protected area managers, enforcement officers, academics, and litigators from coral reef destinations around the world.

In February of this year, CORAL became the new home of the Coral Reef CSI program. This exciting new partnership is allowing us to expand our reach to new regions while strengthening global efforts to bring effective litigation that will increase protection for coral reefs.

The Coral Reef CSI team traveled to our project site in Roatan, Honduras, this March to train a new team of resource managers. Additional trainings in Thailand, Indonesia, and Guadeloupe are slated for later this year.



THE CORAL REEF ALLIANCE

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Sharks Need Continued Protection from Finning

CORAL CURRENT

The Newsletter of the Coral Reef Alliance

The debate over shark fins is heating up in California, home of CORAL's headquarters. State Assembly members Paul Fong and Jared Huffman introduced a bill in February that would ban the possession and sale of shark fins in California. We are in full support of the legislation and believe it is an important and necessary step to protect these majestic apex predators.

Similar proposals have already been adopted in Hawaii, Guam, and other forwardthinking regions, and are under review in Washington, Oregon, and even China. Now, while shark finning is making headlines around the world, we must act to end this outdated and irresponsible practice.

If you live in an area considering a ban, please contact your local politicians to support the effort. If not, please urge your legislators to take the lead in tackling this issue. And don't miss the next issue of *CORAL Current* to learn about a new initiative we're launching to protect sharks in one of our project sites!