

# Communities Around the Globe Protect the Underwater World

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Marine conservation partnerships between community officials, dive operators, snorkellers, students, and other aquatic enthusiasts have developed around the world to protect ocean resources.

Every year in April, in recognition of Earth Day, the Coral Reef Alliance (CORAL), a San Francisco-based environmental organization, rallies tens of thousands of people from across the globe to focus on a common cause: protecting the planet's oceans, coral reefs, and aquatic ecosystems. The program, "Dive In To Earth Day," was designed to ensure that the underwater world is not forgotten and becomes an integral part of the annual Earth Day campaign.

Hundreds of volunteers organize and participate in activities to protect their local aquatic environments and raise awareness of the need for marine conservation. Organizers come from all walks of life and every corner of the planet: elementary school students in the Cayman Islands organize beach cleanups; scientists in China conduct reef surveys; environmental organizations in the United States hold fundraising events for marine parks; and dive businesses in Indonesia install mooring buoys. Although most activities occur around Earth Day, April 22, the program has resulted in successful year-round marine conservation in communities throughout the world.

## History and Need

CORAL launched Dive In To Earth Day in 2000 to commemorate the 30th anniversary of the first Earth Day, April 22, 1970. On that historic day, 20 million Americans gathered on the streets and in parks and auditoriums to demand a healthy and sustainable environment. That landmark event led to the creation of the U.S. Environmental Protection Agency and the passage of the Clean Air, Clean Water, and Endangered Species acts. It also marked the beginning of the environmental movement as we know it today. Earth Day is now celebrated by hundreds of millions of people in nearly every country, and it is a driving force for environmental awareness around the globe.



A diver explores a coral reef in the Red Sea, near Egypt's Brothers Islands. (Photo courtesy Mary L. Frost)

Coral reefs have more species per unit-area than the densest tropical rainforests, and they provide habitat to 25 percent of all known marine species. They are the primary source of food and income for millions of people, produce valuable chemical compounds for medicines, and provide natural barriers that protect beaches and coastlines from storms and waves. Yet, according to recent estimates, 11 percent of the world's coral reefs have already been lost; another 16 percent have been severely damaged; and scientists predict that 32 percent may be lost in the next 30 years if human threats are not reduced.

Dive In To Earth Day was seen as an opportunity to build on the success of the global Earth Day campaign to raise awareness of the urgent need to protect coral reefs and the underwater world. The program was developed in support of CORAL's mission to work with communities around the world, helping to identify and solve coral reef conservation challenges and to change attitudes and behavior through education. As global awareness of the value of coral reefs increases, so will efforts to reduce current threats.

Prior to 2000, CORAL had noticed a significant lack of marine conservation activities during the Earth Day celebrations. Most activities focused on land-based environmental issues, such as deforestation and pollution. There seemed little emphasis on the impact of these problems on the underwater world, even though more than 70 percent of the planet is covered by water. Aquatic ecosystems are under increasing threat from coastal development, overfishing, destructive fishing, pollution, climate change, and a host of other human impacts.

Coral reefs rank as one of the most diverse ecosystems on the planet and one of the most threatened. Only recently have we begun to understand their role in the health of the oceans.

With the support of partner organizations including Project AWARE Foundation, Environmental Defense, Reef Check, REEF, the International Coral Reef Action Network (ICRAN), and the Ocean Conservancy, CORAL launched the first ever Dive In To Earth Day in April 2000, and it was an immediate success. Dive In reached out to tens of thousands of people across the planet. In just four years, 874 organizers in 83 countries and territories around the world coordinated local activities. More than 70 percent of Dive In activities focused on protecting the world's threatened coral reefs. By 2003, Dive In To Earth Day generated more than 20 percent of all registered Earth Day activities worldwide, reaching out to many small island nations and territories that had never before participated.

## Community Partnerships

Dive In To Earth Day brings together different stakeholder groups, stressing the need for collaboration to effectively protect marine resources. The events have generated new conservation partnerships in which environmental groups and marine protected areas team up with local communities, dive operators, snorkellers, students, and other aquatic enthusiasts. Dive In helps build connections between these different stakeholders and their local marine environments, and it provides the impetus for them to take stewardship of their waters, often well beyond the April festivities.

Dive In activities generally fall under four categories: education and awareness; threat reduction; research and monitoring; and support of coral parks.

### *Education and Awareness*

A majority of Dive In activities focus on educating the public about pressing coral reef and marine conservation issues. In 2003, 75 percent of the organizers felt their Dive In activities educated participants about threats to coral reefs, coral reef ecology, low impact diving, and the importance of marine conservation. Moreover, 58 percent said their activity motivated people to become more involved in coral reef conservation.

Maureen "Mo" Riggs runs a resort in Kadavu, Fiji. Although her business keeps her busy, Riggs decided to organize a Dive In activity for children in the village. With enthusiasm and creativity, she arranged a full week of activities, bringing together 70 children and teenagers to collect litter, discuss recycling, and go snorkeling and kayaking. "The most rewarding aspect for us," Riggs reported, "was the incredible enthusiasm from all the children that participated in the recycling discussions and the energy they exerted in all the activities."

In Guam, the high school club "Marine Mania" participates in Dive In each year. The group has a

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special interest in helping sea turtles, which are threatened locally by coastal development and marine pollution. The small group organized a benefit dinner, invited guest speakers, and showed videos on the plight of Guam's sea turtles, donating the proceeds to local sea turtle research and protection efforts. The following year, the same group posted warning signs beside storm drains at various locations across the island to educate residents about the hazards of dumping oil, chemicals, and debris into storm drains that lead directly into the bays and the ocean.

### *Threat Reduction*

Many Dive In activities actively reduce a specific threat to their waters, such as anchor damage or pollution. Between 2000 and 2003, Dive In participants collectively removed an estimated 238,140 pounds of trash from oceans and shorelines around the world.

In Bali, Indonesia, the scuba diving industry is large and varied, with limited communication between businesses. The dive operators recognized the need to work together to address threats to local reefs from anchor damage, destructive fishing, land- and marine-based pollution, and sedimentation from coastal erosion. The dive operators met in January this year and decided to use Dive In To Earth Day as motivation to take action. They formed a "Dive In Bali" committee, and plans are now underway to install a series of mooring buoys at various dive sites on the island to prevent anchors from damaging fragile corals. The committee is also preparing to hold a community awareness festival, underwater reef cleanup, and slide show at a village elementary school.

On the other side of the planet, in Port St. Lucie, Florida, Lee Hedrick holds an annual Dive In party for volunteers in her community. In 2003, approximately 70 participants cleaned hundreds of pounds of trash from her local beach, removed fishing line from local dive sites, and learned about

the need to protect reefs. Hedrick provided participants with a barbecue dinner and raffle prizes. "We found that if you communicate the need to help conserve and protect the coral parks, oceans, and beaches in a fun and casual atmosphere, more people are curious to know and see," Hedrick said. "Then they offer their help, which leads to knowledge and more understanding of why everyone should do something or contribute to being a good 'enviro-steward,' as every day is Earth Day."

#### *Research and Monitoring*

A large number of Dive In organizers monitor and assess the health of their underwater ecosystems. Reef and fish surveys have been conducted in many countries, providing scientists with invaluable data on the state of coral reefs and marine environments.

In India, Dr. K. Venkataraman of the Marine Biological Station, Zoological Survey of India, spent Dive In To Earth Day surveying the reefs off the Gulf of Mannar Island. He gathered local people and colleagues for a snorkeling and diving trip to record valuable data on the health of the coral reefs. Venkataraman wrote to CORAL expressing "thrill and satisfaction of being partner in this worldwide movement."

William Ong of Pro Diving Services in Singapore has been part of an ongoing reef survey and fish count since 1997. In collaboration with the National University of Singapore Research Team, Ong used the Dive In To Earth Day campaign as a way to educate the public about the state of the reefs and to raise awareness of the reef survey program, in hopes of increasing community understanding and support.

#### *Supporting Marine Parks*

Studies have shown that establishing marine protected areas is one of the most effective ways to protect coral reefs and aquatic ecosystems. In a recent CORAL survey of coral reef protected areas, park managers identified public support as a critical

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element to improve their management capacity. Dive In To Earth Day has emerged as a way for managers to effectively communicate with their communities and engage the support of local stakeholders in coral parks.

In St. Lucia in the Caribbean, the Soufriere Marine Management Area (SMMA) decided to use Dive In To Earth Day to achieve communication goals. "Dive In To Earth Day activities seemed to me an ideal opportunity to merge our own attempts with that of the wider international community," said Glenda Allain, SMMA public relations officer. "It is a perfect opportunity to really get everyone involved—the SMMA, fishermen, dive operators, Department of Fisheries, tourism personnel, the Solid Waste Management Authority, school students, and persons from around St. Lucia." Allain and her colleagues organized a mooring installation with the park's marine rangers; a glass-bottom boat tour for students and community members; and an "Open Day" with slide presentations, video clips, and on-site explanations of scientific monitoring for students and the general public.

At Hol Chan Marine Reserve in Belize, park rangers organize an annual "Community Reef Week" as part of the Dive In celebrations. Dive In To Earth Day gives rangers an opportunity to get the community more involved in the reserve and to educate everyone on the need for its protection. In another instance, the International Marinelife Alliance, a nonprofit organization, celebrated Dive In by launching the first locally managed marine reserve in Vietnam, Reef Trao, and gained important community support. In the Philippines, Project Seahorse and The Haribon Foundation conducted an educational guided tour to the local marine sanctuary to let villagers witness the impact of protection and management.

#### **Future: Where Is Dive In Going?**

Dive In activities provide short-term solutions to specific threats but also create a platform on which to build marine conservation awareness and long-term community involvement. Dive In To Earth

Day provides the opportunity to focus on and initiate the protection of our underwater world.

Dive In has catalyzed the interest of thousands of individuals around the world on the need to protect the marine environment. As a result, Earth Day has now truly become a planetary event, capturing a strong environmental message for both the terrestrial and the marine world. CORAL will continue to build on the success of Dive In with more events that generate broader awareness. And with that, CORAL and our partners will strive to expand that awareness into responsibility and extend community conservation efforts beyond just one day a year.

*The Coral Reef Alliance (CORAL) coordinates Dive In To Earth Day in partnership with Project AWARE Foundation, and with the support of West Marine, Air Pacific, Earth Day Network, and the International Coral Reef Action Network (ICRAN). For more information, visit [www.coral.org/divein](http://www.coral.org/divein).*

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