

CORAL

CURRENT

CORAL REEF ALLIANCE QUARTERLY MAGAZINE SUMMER / AUTUMN 2014

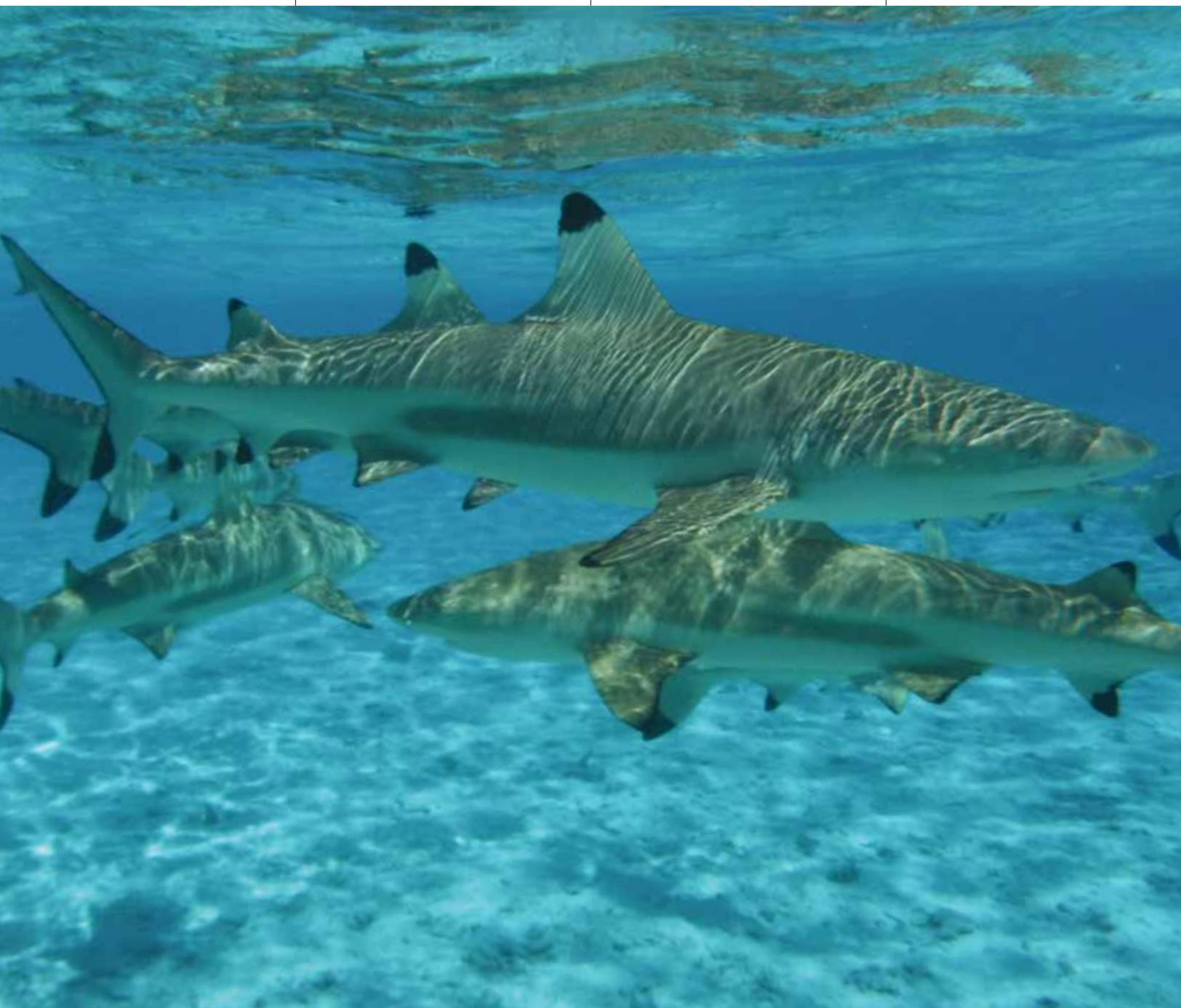
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All photos by CORAL staff unless otherwise indicated

On the Front Cover: Blacktip reef shark (*Carcharhinus melanopterus*) off Palmyra Atoll. Photo by Supertoff

On the Back Cover: Raja Ampat reef. Photo by Jeff Yonover



Our CORAL team convened at CORAL's 20th Anniversary Gala at the Academy of Sciences on September 20, 2014. PHOTO BY: ERIC SLOMANSON

Voices of CORAL

I started with CORAL as the Communications Manager in August. Just a few weeks after I started—and in between moving our headquarters' office to Oakland and holding our 20th Anniversary Gala—we hosted all of our field staff for our annual week-long field summit.

I can't even begin to describe how inspirational it was. I left every day with a wealth of new information and feeling charged and ready to do whatever I could to save coral reefs. We have such an incredible team of educated, talented, and passionate field staff. They truly care about the communities they work with and the reefs they protect, and it shows in everything they do and say.

Coming from a natural resource management and international development background, I am well familiar with the challenges of international development and conservation. A real take-away for me was learning about CORAL's commitment to building local capacity and autonomy so programs extend well beyond our work and our

time, and communities receive local benefits. At one point, Didi Dulunaqio, our Fiji field representative, summed this up perfectly. "When NGOs come in and get territorial, communities suffer. At the end of the day, the NGOs leave and the communities are still there."

I can't wait to show off our incredible field team to the world and highlight the amazing work they are doing—but I also can't wait to highlight our on the ground partners and support local community efforts. CORAL's uniqueness lies in the way we partner with communities around the world, and I plan to embrace that as much as I can.

NEXT ISSUE



Look to the next issue of *CORAL Current*, our special annual report edition, for more on our 20th anniversary celebration.

NOT ALL Doom and Gloom

F O R C A R I B B E A N C O R A L R E E F S



Restoring parrotfish and other important herbivore populations could save coral reefs.

A new report shows that Caribbean coral reefs have declined by more than 50 percent since 1970. The report, *Status and Trends of Caribbean Coral Reefs: 1970-2012*, published by the Global Coral Reef Monitoring Network (GCRMN), the International Union for Conservation of Nature (IUCN), and the United Nations Environment Programme (UNEP), says most Caribbean coral reefs could disappear within the next 20 years.

But it's not all doom and gloom for Caribbean coral reefs; according to the report's authors (Jeremy Jackson, Mary Donovan, Katie Cramer, and Vivian Lam), this downward trend is in large part due to a decline in grazers in the region, and restoring parrotfish and other herbivore populations could lead to reef recovery.

Areas with intact and healthy populations of parrotfish saw less of a decrease in coral cover. The role of parrotfish became especially critical in 1983 after the catastrophic population decline of the black spined

sea urchin (*Diadema antillarum*), another important herbivore. The loss of herbivores not only leads to an increase in macroalgae threatening coral coverage, but also leads to an increase in coral disease and affects the ability of coral reefs to recover from large storm events. Data show that after the drastic decline of sea urchin populations, the ability of coral reefs to recover from hurricanes declined. Simultaneously, reefs that were protected from overfishing in Bermuda did not experience any loss of coral coverage during hurricanes.

While the decline in grazer populations due to overfishing isn't the only threat to coral reefs, it is the most significant to date. There are too little data to assess the correlation between coastal pollution and the loss in coral cover. There was also no significant correlation found between rising ocean temperatures and the loss of coral cover. This does not mean that climate change is not a threat to coral reefs—it simply means local stressors have been more of a threat to reefs in the Caribbean up to this point.

In order to effectively manage Caribbean coral reefs moving forward, the authors recommend four action items: adopt strong fisheries management strategies that protect herbivore populations, simplify and standardize monitoring of coral reefs, communicate regularly and exchange information with local authorities, and address threats by adopting and implementing adaptive management practices. They conclude by stating "Caribbean coral reefs and their associate resources will virtually disappear within just a few decades unless all of these measures are promptly adopted and enforced."

READ MORE

Learn what CORAL Board Member and acclaimed coral reef scientist Dr. Nancy Knowlton has to say about the report and what this means for CORAL's work. [Page 6](#)

Blacktip



PHOTO BY: JOSEPH BYLUND



PHOTO BY: LEON BROCARD



PHOTO BY: GEOFF SHUETRIM

Blacktip reef sharks are apex predators in the coral reef ecosystem, and help keep the system balanced.

Blacktip reef sharks (*Carcharhinus melanopterus*) are recognized by the black tips on their dorsal and caudal fins, and their camouflaged bodies with a white belly and dark back. Blacktips can grow to be 6-feet long, and are mostly found in shallow waters near reefs in the Pacific region and Indian Ocean, though they can also enter freshwater and brackish environments.

They have a very small home range, typically staying within 1.5 miles of their home. They have been known to enter incredibly shallow water, as little as 12 inches deep or less.

They often swim in schools and feed on reef fish, crustaceans, cephalopods, and mollusks. It is not uncommon to find a small group of sharks herding a school of reef fish towards shore to



PHOTO BY: ERIC BENACEK



PHOTO BY: BRIAN GRATWICKE

Overfishing is leading to a population decline, and the IUCN now rates blacktips as “near threatened.”

feed *en masse*. Occasionally they will breach and jump out of the water during a feeding frenzy.

Most blacktips will shy away from swimmers and divers. While not aggressive to humans, they have been known to attack if provoked. Most attacks on humans have been on swimmers wading through reefs, where they are most likely mistaken for food.

Though they are not currently endangered, blacktips are experiencing heavy population loss due to overfishing. Commercial fisheries value them for their meat, fins, and liver oil.



What does this report mean for CORAL? We spoke with Dr. Nancy Knowlton, CORAL Board Member, renowned coral reef scientist, and wife of the report's lead author Jeremy Jackson,

to find out. Here's what she had to say:

Is it all doom and gloom for coral reefs, or can we save them? *Nancy:* It's not all doom and gloom. That's the whole point of the report, there are places that are doing quite well where fishing and water pollution are managed.

So can we save coral reefs by managing fishing and water pollution? *Nancy:* In the long run we're going to have to do something about carbon dioxide emissions, but in the short term, managing those two local stressors buys us incredibly valuable time.

What sort of timeline are we looking at? How quickly do things need to change to save coral reefs? *Nancy:* In terms of local management, the sooner the better. Actually, for all of this stuff the sooner the better. It's hard to give an actual timeline. The longer you wait, the more damage is done. There's no reason a lot of the local management recommendations can't be in place within 5-10 years. The carbon problem will take more like a decade or two, and we don't have much longer than that.

What does this report mean for the work we do at CORAL? *Nancy:* Essentially all of the work that CORAL does is related to managing local stressors. It means the efforts that CORAL is taking are exactly what is needed now to protect coral reefs. The report specifically goes into the importance of managing herbivorous fishes, which is applicable to a lot of the places that CORAL works.

What does this report mean for our local partners? *Nancy:* It indicates the importance of local management. Since CORAL's partners are local, they're the ones that are on the ground and essential to implementing these recommendations.

Are there any other takeaways you hope people have when reading this report? *Nancy:* It's not all hopeless. There is a lot that we can do now. That's the primary message and the important takeaway.



Working Toward

E F F E C T I V E M A N A G E M E N T

Effective local management of marine resources is crucial to the health of coral reefs. Given the mounting threats facing coral reefs and the short timeline for action, we need to strengthen local community management to protect these ecosystems and the services they provide. While we may, as a field, understand what makes a local management system successful, there is still much room to improve our efforts. For example, one estimate found that only six percent of coral reefs are effectively managed. So what can we do to improve this situation?



This was the question we posed in a two-day workshop we co-hosted with Bloomberg Philanthropies and The Tiffany & Co. Foundation in New York City this July. We gathered 27 experts from around the world at Bloomberg Philanthropies' offices to discuss what hinders the ability to effectively manage coral reefs at the local level. The workshop was attended by conservation professionals and subject matter experts from universities and NGOs, conservation practitioners, resource managers, and funders.

After two days of discussions that focused on identifying gaps in the sharing and use of information that hinder the effectiveness of local management efforts, some key themes emerged. First, we agreed that the initial process by which a community comes together to think about conservation is integral to the long-term success of a management system. International NGOs and funders need to carefully consider the role they play in this process and understand what elements make this process successful. Second, the group expressed interest in creating networks to share examples of successful local management approaches that have been adopted around the world. Third, we discussed typical timelines of funding cycles and ways to ensure that local management systems are financially self-sustaining over long time periods. To this end, understanding the different approaches to sustainable financing that have been implemented—including diver use fees in Roatan, Honduras, and the Namena Marine Reserve in Fiji—is crucial.



In short, it was a fantastic workshop, full of candid discussions and many great ideas. We are currently following up with workshop participants to determine next steps to moving this important work forward.



The breath-taking Namena Marine Reserve is thriving, in part because of CORAL. 2015 will be the first year the Kubulau Resource Management Committee sells Namena dive tags without our direct support.

Sustainable Funding for the Namena Marine Reserve in Fiji

In 2001, CORAL began working with the Namena Marine Reserve in Fiji, with the goal of creating a marine protected area that is effectively managed entirely by the local community. Since then, we've helped implement necessary changes to the user-fee system, which generates revenue by the sale of annual dive tags. We created a dive tag manual to regulate how they are sold, and most recently, we gained approval by the Bosa Vanua (head chiefs) to increase the percentage of revenue that goes toward funding the management of the reserve.

Over the years, the dive tag system has become a model of success. Tags have

become a popular collectors' item, treasured by divers all over the world. This year, for the first time, the 2014 dive tag supply was sold out by August, and the Kubulau Resource Management Committee (KRMC) had to place a second order to make it through the end of the year. Next year will be the first year the KRMC will produce and sell the dive tags without any direct financial or logistical support from CORAL.

The funds collected go directly to the KRMC and it is up to their discretion how the money is allocated. However, with CORAL's encouragement, revenue is split between funding management efforts for

Namena (mooring buoys, fuel for patrol boats, etc.), and funding community development projects and academic scholarships for Kubulau youth. To date, there have been over 170 scholarship recipients.

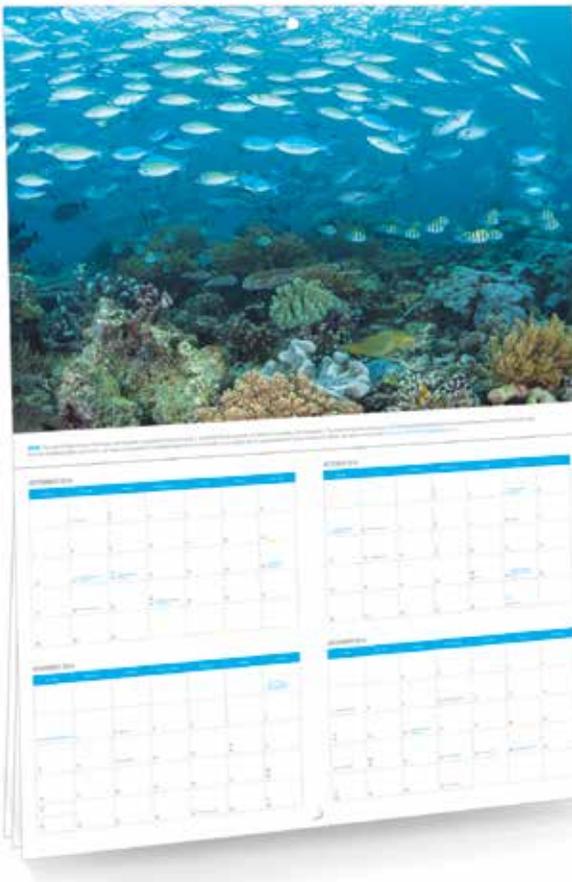
The Namena Marine Reserve is Fiji's largest no-take marine protected area, and we hope to see it set the stage for a larger network of locally managed marine areas (LMMAs) in and around Fiji. This community-managed funding mechanism is a big leap forward in building the self-sufficiency of the community and their capacity to manage such an important ecological area.



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2015 CALENDARS

The end of 2014 is here— and CORAL faithfuls know what that means: it's calendar time!

Once again, we're excited to send our supporters a special gift that celebrates the beauty and diversity of coral reefs. Thanks to our talented photo contest participants and a select group of other underwater photographers who have generously shared their photos with us—and you—we have put together one of our most showstopping calendars yet.

Donors who have made a single gift of \$50 or more this year and our active Friends of the Reef monthly supporters should have already received their calendars. To be sure you receive yours, please use the enclosed envelope to make your generous gift today.

Thank You!