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CARIBBEAN’S LARGEST BARRIER CORAL REEF SYSTEM FACES NEW THREATS, BUT ALSO TESTS NEW SOLUTIONS

(Mesoamerican Reef – February 13th, 2020) -- The Healthy Reefs for Healthy People Initiative (HRI) today released its 2020 Mesoamerican Reef Health Report Card. For the first time in 12 years of tracking the health of the largest barrier reef in the Western Hemisphere, the overall condition of this vital ecosystem has deteriorated. The Reef Health Index (RHI), which synthesizes ecological data into a “Dow Jones” style index, decreased from 2.8 in 2016 to 2.5 in 2018. Despite the recent decline, reef health still shows improvement compared to 2006 when the HRI monitoring efforts began. A similar report released last summer for Australia’s Great Barrier Reef also marked a dramatic reduction in reef condition, signaling a worrisome outlook for two of the world’s most important reef systems in different hemispheres of the globe. “Over the past decade we have documented a slow but positive recovery of the Mesoamerican Barrier Reef System,” according to Dr. Melanie McField, Director of the Healthy Reefs Initiative and marine scientist with the Smithsonian Institution, “but this recent decline highlights the need to step up local actions to improve water quality and increase fish populations and accelerate international commitments to reduce carbon emissions in order to halt climate change impacts on reefs.” The report is based on a new study of 286 coral reef sites along 1000 km of the Caribbean coasts of Mexico, Belize, Guatemala, and Honduras.

A key factor behind the recovery of some reefs was due to the protection and subsequent recovery of parrotfish, who help keep algae from overgrowing and killing corals. Belize had the highest and only RHI to improve from 2.8 to 3.0, with increases in herbivorous fish and a decrease in fleshy macroalgae. These improvements result from Belize taking an unprecedented step to implement country-wide protection of parrotfish in 2009. Today, due to regional collective efforts, parrotfish are now protected throughout the region including Quintana Roo, Mexico, Belize, Guatemala, and the Bay Islands of Honduras. Belize’s Fisheries Administrator, Beverly Wade, stated: “When the first Healthy Reefs Report Card results were presented in 2008, the Government of Belize made the commitment to support pioneering measures such as the protection of key grazers. We

are pleased that these efforts are showing measurable improvements, and that our neighboring countries have also taken these steps to help reefs recover.”

Corals are now facing a new crisis - stony coral tissue loss disease, which is likely the most lethal coral disease to affect the MAR’s coral reefs. Similar to the devastating loss of corals in Florida, this new coral disease outbreak quickly affected 450 km of reefs along the Mexican-Caribbean coast in 2018 and reached northernmost Belize reefs in summer 2019, where it has remained. Partners are treating corals to reduce the disease spread, investigating innovative techniques to rescue corals, and developing plans to scale up coral restoration efforts. The cause of the disease is not known, although a bacterial pathogen is suspected to play a role. Part of the solution lies in improving sewage treatment, as pathogens and other contaminants in wastewater can fuel both diseases and algal proliferation and reduce coral growth, recruitment and survival. “We are at an environmental emergency level where wastewater treatment must be a matter of national security, especially in regions where the only source of fresh water comes from the aquifer and discharges into our Mesoamerican Reef System. Wastewater treatment becomes an international emergency to save the MAR and achieve SDG 6 by 2030,” said Alejandro López Tamayo, Director at Centinelas del Agua.

The greatest decline in reef health was related to large decreases in commercial and herbivorous fish, particularly in Honduras (whose RHI went from 3.0 to 2.5) and is attributed to unsustainable fishing practices, insufficient fully protected areas and lack of enforcement of existing fishing regulations. “Honduras supports incredible ecological wealth in the Caribbean, but two major threats are deteriorating these resources including a lack of management of fishing activities and lack of sanitation,” said Jenny Myton of Coral Reef Alliance. “We still have time to reverse this deterioration since we have high cover of living coral and a decrease in macroalgae. However, it is necessary to work together to implement holistic solutions to improve the living conditions of Hondurans by increasing food security, the economy through sustainable tourism and the health of the population.”

One resolution is to increase the amount of fully protected areas. Over 50% of the marine territory in the MAR lies within Marine Protected Areas; however, only 3% is fully protected from fishing. The previous 2018 HRI Report found fully protected replenishment zones had doubled the amount of commercial fish over the past decade. The 2020 report identified several coral reefs with abundant fish populations also had effective management, such as in Cozumel and southern Belize. Expanding the amount of fully protected areas (including fish spawning sites) and increasing enforcement of fishing regulations are critical to rebuilding fish populations. In Guatemala, efforts are underway to protect the Cayman Crown Reef, an extensive coral reef important to the region’s ecological connectivity. “We are

working closely with HRI on the characterization and exploration of the most well-developed reef of the country with aims on protecting the site. If we achieve its protection, this would be the first fully protected Replenishment Zone on a reef in Guatemala," said Carlos Marin Arreola, Director of the Fisheries Department of Guatemala.

The 2020 report documents reef condition throughout the Mesoamerican Region, pinpoints specific reefs in decline and those that are more resilient, highlights stories of hope, and identifies specific actions needed to abate threats.

About the Healthy Reefs Initiative: Founded in 2003, Healthy Reefs for Healthy People (HRI) is a collaborative international initiative, hosted by the Smithsonian Institution and made up of more than 70 partners, that quantitatively assesses coral reef health and informs science-based management recommendations for the Mesoamerican Reef Ecosystem (MAR). HRI aims to improve reef management and decision-making to effectively sustain an economically and ecologically thriving MAR eco-region. Together with our partners, we are scaling-up and improving coral reef conservation, restoration and management throughout the region. Find out more at: <http://www.healthyreefs.org>.

Social Media:

- Full Report and media package at: www.healthyreefs.org
- Ecological MAR Data Explorer at: <https://www.healthyreefs.org/cms/data-explorer>
- Facebook: @HealthyReefsForHealthyPeople
- Twitter: @HealthyReefs
- Instagram: @healthyreefs
- YouTube: @healthyreefs

Webinars by Earth Journalism Network to be aired February 18th, 2020:

- English 11:30 EST:
https://zoom.us/meeting/register/u5Ekf-2qgjou9IplW8yU1z_X-fgAgFEzDA
- Spanish 10:00 EST:
<https://zoom.us/meeting/register/v5AvfuugpjgrGaulL7KkvkVWhNEs0Kltiw>

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