



CE Noticias Financieras English
Climate change: Can the oceans be saved?

1,193 words
26 November 2019
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

SAVANNAH, Georgia, USA (AP) — At a glance, these 57 square kilometers (22 square miles) of water don't seem exceptional at all.

But beneath the surface -- at 20 or 25 meters (60 or 70 feet) -- deep, there is a spectacular seascape. Sponges, balanos and worms cover the rocky ledges of the ocean floor, bringing to life the bottom of the sea.

Gray's Reef is little more than a drop in the ocean 30 kilometers (19 miles) off the coast of Georgia, but don't confuse its size with its importance. In one of his last official measures, President Jimmy Carter declared the reef a national marine sanctuary at the request of conservationists who said the abundant life there was something unique, deserving to be preserved for future generations.

For nearly 40 years, the U.S. government has protected the reef, where there are more than 200 species of fish and a surprising amount of invertebrates, nearly 1,000. Recreational fishing and diving are permitted, but commercial fishing and other forms of sea exploitation are not permitted.

The example of Gray's Reef has been imitated and other nations designated sanctuaries and protected areas that now cover approximately 6% of the oceans. This is very useful for researchers and, more importantly, a great way to safeguard the sea.

Doubts persist as to the extent to which these parts of the oceans can actually be preserved. Last year was the hottest news in the oceans and protected areas can do nothing to contain the source of warming: greenhouse gas emissions. The U.S. government says that more than 90% of the global warming in the last half century occurred in the oceans.

This had a huge impact on the waters covering 70% of the land area. Scientists link warming to sea floods, fish disappearance and coral bleaching. The ocean has become more acidic because humans release higher concentrations of carbon dioxide that go into the atmosphere and that jeopardizes the crustaceans and planctons that are the basis of the food chain.

Supporters of protected areas range from fishermen living off what they catch on the smaller Pacific islands to researchers from major academic centers.

"We don't protect these areas for ourselves," says Roldán Muñoz, a biologist with the National Marine Fisheries Service, during a recent trip to the reefs. "We protect them for our nations."

On an expedition from the National Oceanic and Atmospheric Administration to Gray's Reef, the Nancy Foster ship is full of scientists who will do all sorts of research to determine, for example, whether lionfish is in the area and the impact of changing ocean conditions in corals.

Sanctuary research coordinator Kimberly Roberson and other scientists prepare to dive in and gather information about the despites in the area, while Craig Aumack, an adjunct professor of biology at Georgia South University, analyze algae under a microscope.

Aumack points out that as the water warms up, more species of seaweed and tropical fish appear, such as the labrid clown, a fish native to the Caribbean Sea that was found off the coast of Georgia this year. He was probably displaced hundreds of miles north by the change in ocean temperatures.

The shrine is named after Milton "Sam" Gray, a biologist who studied it in the 1960s and identified it as an ecosystem worth saving; a reef not far from the American coast full of life, especially with "an abundant diversity of invertebrates," Roberson says. Without this designation, this habitat may well have disappeared as a result of high-impact industries, such as a commercial fishing boat, which are now prohibited.

"In some ways, this is proof of what marine protected areas can do around the area," says Clark Alexander, director and professor at the Skidaway Institute of Oceanography and a former member of the sanctuary's advisory board. "It was an ideal place to preserve this type of habitat and make it available to researchers and for recreation."

More protected areas have emerged around the world in the decades since the gray's was created.

The Phoenix Island Protected Area, created in January 2008, covers 388.00 square kilometers (150,000 square miles) near the small island of Kiribati and is mentioned by scientists for having brought back certain species of fish in a decade. A twice as large area, the Rapa Nui Marine Protected Area, has surrounded Easter Island since its inception in 2018.

Former Presidents George W. Bush (son) and Barack Obama significantly expanded protected areas. Bush created the Papahānaumokuākea Marine National Monument in front of Hawaii, and Obama enlarged it at the end of his presidency to cover 1.5 million square kilometers (582,000 square miles).

Other smaller protected areas were added, such as the 12,900 square kilometers (5,000 square miles) of Northwest Canyon and the Seamounts National Monument, off New England, created by Obama in 2016.

Nine years ago, the United Nations Convention on Biological Diversity set a target of 10% of the protected ocean by 2020. The UN said in 2017 that it is well on track to meet this goal and that protected areas "contribute to social, economic and environmental benefits."

A common problem with protected areas is the difficulty in enforcing laws that restrict commercial fishing and other invasive activities in areas that few people venture, especially in parts of the developing world, where resources are scarce.

Creating new protected areas without reducing fishing quotas will not save species, says Daniel Pauly, a professor of fisheries at the University of British Columbia in Vancouver.

It's not a small subject. Some estimates indicate that the number of fish in the ocean fell by half 1970 to 2015. That figure is expected to continue to fall as a result of global warming.

"Reconstruction will require not only a few new protected areas, but also reduced quotas," Pauly said.

Numerous scientists believe that protecting large expanses in the oceans won't do much good.

A group of researchers led by university of North Carolina professor of marine ecology John Bruno last year published a pessimistic study of the impact of climate change on protected areas. They found that these areas will warm about 5 degrees Fahrenheit towards 2100, destroying species and marine life, despite protections.

Bruno's studies reflect the reality of coral bleaching at sites like Great Barrier Reef off the coast of Australia, which is heavily protected but still vulnerable to the impact of global warming.

This leaves a lesson illustrating the legacy of Gray's Reef: Protected areas can prevent pieces of the ocean from being extinguished, but they cannot save everything.

"If it was up to me, it would protect 30% of the ocean," Bruno says. "What we are trying to say is that we need to tackle climate change head-on from reducing emissions. There's no other exit." _____

Patrick Whittle is on Twitter: @pxwhittle

This series of The Associated Press is produced in conjunction with the Department of Scientific Education at the Howard Hughes Medical Institute. The AP is solely responsible for its content.

Document NFINCE0020191126efbq0028f

Search Summary

Text	"daniel pauly"
Date	In the last month
Source	All Sources
Author	All Authors
Company	All Companies
Subject	All Subjects
Industry	All Industries
Region	All Regions
Language	English
Results Found	20
Timestamp	27 November 2019 10:02 AM