



## Loss of federal protections may imperil pacific reefs, scientists warn

831 words

8 November 2017

Qatar Tribune

QATRIB

English

© Copyright Qatar Tribune. All Rights Reserved.

NYT Syndicate

Terry Kerby has been piloting deep-sea submarines for four decades, but nothing prepared him for the devastation he observed recently on several underwater mountains called seamounts in the middle of the Pacific Ocean.

"It was a biological desert," he said. Where normally fish and crabs dart about forests of coral and sponges, "all we could see was a parking lot full of nets and lines, with no life at all."

Kerby and Brendan Roark, a geographer at Texas A&M University, are comparing seamounts that have been fished to those in pristine, protected areas. This month, they surveyed the upper reaches of four seamounts, one of which, Hancock, lies inside Papahānaumokuākea Marine National Monument, which includes the Northwestern Hawaiian Islands.

They knew that the seamounts had been fished by trawlers and coral harvesters at some point. "But the extent of the devastation and the huge amount of gear that was abandoned on the bottom were shocking for both of us," he said.

Among the casualties littering the seabed were 10-foot-tall black corals that can live over 4,000 years, among the oldest forms of life on Earth.

"Allowing fishing in the few protected seamounts left would be a huge mistake," Roark said.

It's a sentiment widely shared among marine ecologists.

The Trump administration is considering rolling back federal protections for 10 national monuments, including two in the central Pacific. The Pacific Remote Islands National Marine Monument and the Rose Atoll National Marine Monument protect the waters around a handful of islands, most uninhabited, to the south of the Hawaii Islands.

The shore reefs of the islands have long been protected from commercial fishing; the monument designations extended that protection to 50 miles from shore in some cases and 200 miles in others.

Papahānaumokuākea is a string of mostly uninhabited atolls and reefs that have been largely undisturbed since World War II. At about 583,000 square miles, it is the largest protected area on the planet.

Many scientists see these marine reserves as among the last rich, untouched ecosystems where they can study the effects of climate change in isolation from the impacts of overfishing or pollution.

The fishing industry in Hawaii sees it differently. A driving force behind the administration's reconsideration is an obscure but powerful quasi-governmental organization called the Western Pacific Fishery Management Council, or Wespac, based in Honolulu. The council has jurisdiction over the waters where 140 long-line vessels based in Hawaii "as well as a handful in American Samoa" that fish mostly for tuna and billfish.

Robert Richmond, a marine ecologist at the University of Hawaii, pointed out that the Hawaii fleet filled its yearly quota of bigeye in August this year,"so they obviously don't need more space to fish. They're just against all protected areas on principle."

Over 500 million people depend on reefs for protein, Richmond said, and they already yield far less than they could if they were sustainably fished. Reef ecosystems may become even less productive as the ocean gets warmer and more acidic.

"The fisheries benefits of marine reserves are now beyond doubt," Callum Roberts, a marine conservation biologist at the University of York, said in an email."They allow fish populations to grow back and spill fish into surrounding waters, they pour fountains of offspring into ocean currents that seed fisheries, and they provide resilience to environmental shocks."

Research by Jonathan A Mee, a fish geneticist at Mount Royal University in Calgary, Alberta, suggests that in any large marine reserve, some"lazy" fish will spend their whole lives inside the boundaries and therefore will not be caught " and the bigger the reserve, the more fish inside it will live longer.

This will raise the number of what scientists call BOFFs (Big Old Fecund Females), which produce more eggs and eggs of better quality, further increasing the density of fish inside the reserve. Mee believes that evolutionary selection of a putative"lazy" gene would accelerate the population growth inside a reserve.

"The bigger the mortality outside the reserve, the faster the population inside will grow," Mee said in an interview.

This would be particularly helpful for bigeye tuna, which is the mainstay of the sushi market and the principal target of the Hawaii long-line fleet. The population of bigeye in the central and western Pacific is now estimated to be 16 percent its original size.

"Technology and subsidies have allowed industrial fleets to go farther and farther, and deeper and deeper, and to deplete stock after stock," said Daniel Pauly, a prominent fisheries scientist at the University of British Columbia, who has shown that the global catch is steadily falling.

"The only thing standing between these fleets and global depletion are these big no-take reserves, so this is the time to create more, not to open up the existing ones to fishing."

Document QATRIB0020171108edb8000I2

### Search Summary

Text	daniel pauly
Date	All Dates
Source	All Sources
Author	All Authors
Company	All Companies
Subject	All Subjects
Industry	All Industries
Region	All Regions
Language	All Languages
Results Found	1,419
Timestamp	26 March 2019 4:43 PM