

Most of Hawaii's coral recover from mass bleaching

January 29 2015, by Audrey Mcavoy



This Jan. 20, 2015 photo released by Hawaii Department of Land & Natural Resources shows coral being studied for bleaching, which is a stress response that causes corals to lose algae and color from their tissue, in Kaneohe Bay near Kaneohe, Hawaii. Warm ocean temperatures last summer stressed many of Hawaii's coral reefs so severely that they expelled the algae they rely on for survival. The resulting mass "bleaching" of Hawaii's corals is a blow to the state's fragile reefs which are already under pressure from runoff from development on land and overfishing. It's also a concerning indicator of a warming globe, with some activists calling coral bleaching the most visible sign of climate change. (AP Photo/Hawaii Department of Land & Natural Resources, Dan Dennison)

Coral rely on algae for food and their survival.

So when the stress of warmer-than-average ocean temperatures prompted many of Hawaii's corals to expel algae last year—a phenomenon called bleaching because coral lose their color when they do this—many were worried they might die.

Now the Hawaii Department of Land and Natural Resources, which released its latest coral survey results on Thursday, says most of the bleached corals have recovered.

Even so, scientists say the experience weakened the coral, making them more likely to get sick. It's also going to be harder for them to withstand warm temperatures in the future.

The incident is a blow to the state's fragile reefs, which are already under pressure from runoff from development, overfishing and recreational use of the ocean.

Coral reefs are a critical part of the ecosystem, and their health is vital to the ocean environment. Coral cover just one-tenth of the ocean floor but are home to 25 percent of known marine species. Some fish eat coral, others hide from predators in them. Some species use coral as nursery grounds. Some types of shark will frequent coral reefs.

Mark Eakin, the coordinator the Coral Reef Watch program at the National Oceanic and Atmospheric Administration, said coral bleaching demonstrates that "climate change isn't something of the distant future."



This Jan. 20, 2015 photo released by Hawaii Department of Land & Natural Resources shows a researcher swimming above coral being studied for bleaching, which is a stress response that causes corals to lose algae and color from their tissue, in Kaneohe Bay near Kaneohe, Hawaii. Warm ocean temperatures last summer stressed many of Hawaii's coral reefs so severely that they expelled the algae they rely on for survival. The resulting mass "bleaching" of Hawaii's corals is a blow to the state's fragile reefs which are already under pressure from runoff from development on land and overfishing. It's also a concerning indicator of a warming globe, with some activists calling coral bleaching the most visible sign of climate change. (AP Photo/Hawaii Department of Land & Natural Resources, Dan Dennison)

Kaneohe Bay on Oahu's east side suffered the most serious bleaching in the state, which is home to 15 percent of all coral under U.S. jurisdiction. Seventy-five percent of the dominant coral species there lost some color or turned completely white.

Subsequent studies after waters cooled showed 12 percent of the bay's bleached coral died, said Anne Rosinski, a marine resource specialist with the state Division of Aquatic Resources.

The remainder regained some color and have been recovering. The coral were weakened to begin with after being covered by runoff from flooding. Then after the bleaching, a boat propeller destroyed some of the coral, she said.

Most bleached corals off Maui and Kauai have also recovered.

The state is trying to do what it can to eliminate other stresses on the coral so they'll be in better shape to survive warmer temperatures, Rosinski said.

"I just worry how much the corals can take," she said.



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There's even bleaker news expected from an isolated atoll about 1,000 miles northwest of Honolulu.

Lisianski Island, which is part of a national marine preserve, suffered months of warmer-than-normal waters over the summer. Researchers visiting in the fall observed some bleaching, but the area is so remote scientists haven't been able to return to check on them since even though temperatures were high there for weeks afterward.

"We're expecting when they go back there's going to be a lot of dead coral," Eakin said.



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Eakin recalled diving on a reef in Thailand after most of the coral there died after a 2010 mass bleaching event. He said the fish were hanging out in the water not knowing what to do.

"Severe bleaching events are like a blight that goes through and kills all

the trees in the forest," he said.



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