

NOAA: Warm oceans cause concern of coral bleaching (Update)

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Credit: Tiago Fioreze / Wikipedia

Abnormally warm ocean temperatures are creating conditions that threaten to kill coral across the equatorial Pacific, north Pacific and western Atlantic oceans, the National Oceanic and Atmospheric Administration said Monday.

Coral bleaching occurs when coral is stressed by changes in its

environment, causing it to release algae living in its tissue. The coral then turns pale or white and becomes more susceptible to disease. In severe cases, the coral can die, permanently changing the habitat for fish and shellfish.

"The bleaching that started in June 2014 has been really bad for corals in the western Pacific," said Mark Eakin, NOAA's Coral Reef Watch coordinator, in a news release Monday. "We are worried that bleaching will spread to the western Atlantic and again into Hawaii."

The warmer oceans are a result of both El Nino weather patterns and overall climate change, Eakin said. However, the frequency of these events indicate overall warming is more of a concern than individual weather patterns.

Eakin said in an interview Monday that despite the fact that El Nino weather patterns are currently in place, that pattern began well after this event of coral bleaching began.

"We're seeing an actual progression that goes along with this sort of big event, but it's happening without a huge El Nino. We're seeing the more frequent return of the these events primarily because the water temperatures without an El Nino are already so warm it takes less ... to tip the scales and cause the corals to bleach," he said.

"We're clearly seeing a sign of the global warming signal warming the oceans and making the corals more susceptible," Eakin added.

Ocean temperatures, light and nutrient levels can cause bleaching. But NOAA says only warm temperatures can cause the widespread bleaching that scientists have been seeing since last year.

In 2014, Hawaii experienced widespread bleaching for the first time in

nearly two decades. If it happens again this year, it would be the first time in history the Hawaiian Islands saw consecutive years of bleaching, NOAA said.

Coral can recover from mild bleaching, but two consecutive years of bleaching could cause severe damage, scientists said.

"Many healthy, resilient coral reefs can withstand bleaching as long as they have time to recover," Eakin said. "However, when you have repeated bleaching on a reef within a short period of time, it's very hard for the corals to recover and survive."

In 2014, 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.

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 they are home to 25 percent of known marine species. Some fish eat coral, and others hide from predators in them. Some species use coral as nursery grounds. Some types of shark will frequent coral reefs.

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