

Global warming is causing coral on Australia's Great Barrier Reef to die

Coral is a plantlike creature that lives deep on the ocean floor. It grows into big colonies, which is called a coral reef.

Millions of underwater animals live and eat inside coral reefs, making for colorful scenes. Normally the coral is a bright pink or orange.

The Great Barrier Reef in the ocean around Australia is the largest and most famous reef on Earth. The reef stretches for 1,400 miles.

Last year, something strange happened in the reef: Its coral began to turn white. Scientists called this "bleaching."

Coral Will Never Get Its Color Back

Unfortunately, the coral may never return to its old colors, a new study says. Scientists say warmer temperatures are to blame. Action must be taken quickly to save the reef, they said.

Temperatures in 2015 and 2016 were the hottest ever recorded on Earth. Heat is not good for corals. It causes them to bleach.

Lots of coral eat algae to get energy. However, when the water is too warm, the coral get stressed. They start to release the algae, even though they need to eat it to live.

Bleached coral is more likely to become diseased. It can take more than 10 years for a coral to recover from disease. If bleaching does not stop, the coral can die.

Coral Has Bleached Three Different Times

Last week, a team of scientists in Australia discussed their study of the reef. They looked at three times coral had bleached: in 1998, in 2002 and in 2016. The bleaching happened all along the reef.

In 2016, more coral than ever had turned white. It was way worse than other bleaching that has happened.

More than 90 percent of the coral was affected by bleaching last year, they found. Only 60 percent was affected in 2002 and 1998.

The team said that the northern Great Barrier Reef may never return to its old colors. The damage in 2016 was just too much, they said.

Protecting Reefs From Heat Is Difficult

In 2017, they say, it looks like the bleaching has not stopped.

Wildlife experts in Australia have tried to protect the reefs. They are looking at ways to improve the water quality around the reef.

But they cannot properly protect it from this heat, the researchers said. Saving the coral will become more challenging as a result.

Terry Hughes is a scientist in Australia who helped lead the reef study. He is following the reef's bleaching this year, looking at it from above and underwater.

Water Temperatures Last Year Were Highest Ever

"We're hoping that the next two to three weeks will cool off quickly, and this year's bleaching won't be anything like last year," he said. In Australia, it is currently the end of summer. Seasons there are reversed because it is located in the Southern Hemisphere.

Janice Lough is a scientist who also helped lead the study. The average water temperature last year was the highest ever seen on the Great Barrier Reef, she said.

The earth is heating up. This is called global warming. When humans use fossil fuels for things like driving and heating their homes, heat gets trapped in the atmosphere. The only solution to save the reef, scientists say, is to end global warming, and quickly. More warming will only increase water temperatures and cause more coral to die.

Trying To Save The Great Barrier Reef

"It broke my heart to see so many corals dying on northern reefs on the Great Barrier Reef in 2016," said Hughes.

The world's nations met in Paris in 2015 to discuss global warming. They agreed to limit the burning of fossil fuels. The countries hope this will limit the warming of Earth. But as the recent bleaching

shows, this may not be enough to save the Great Barrier Reef.

Writing Prompts (on lined paper, please)

1. What is happening to the Great Barrier Reef? Why?
2. What actions should people take to save the Great Barrier Reef? Why?