

Study: Hottest Oceans in 400 Years Endanger Great Barrier Reef

今回は、オーストラリアのグレートバリアリーフに関する最新の研究です。ここ10年で周辺の海水温がこの400年で最も高くなり、大規模なサンゴの白化が繰り返されています。記事に出てくる「threat」は「脅威」という意味で、a threat to health（健康への脅威）や a threat to wildlife（野生動物への脅威）のように使われます。世界最大のサンゴ礁が失われれば、自然環境だけでなく観光や地域経済にも影響します。そんなサンゴ礁や海を守るために、私たちが日常の中でできることにはどんなことがあるのでしょうか？講師と話してみましょう。



1. Article

Read the following article aloud.

New research shows that water temperatures in and around Australia's Great Barrier Reef have risen to their warmest in 400 years over the past 10 years. The rising temperatures have put the world's largest reef under [threat](#).

The Great Barrier Reef is the world's largest living ecosystem. It stretches for 2,400 kilometers off the coast of the northern state of Queensland.

A group of scientists at universities across Australia removed core samples from the coral. They examined the samples to measure summer ocean temperatures going back to the year 1618. The scientists combined information from [core](#) samples with ship and satellite data going back around 100 years.

The results show that ocean temperatures were unchanged for hundreds of years. But starting in 1900, the ocean temperatures began to rise. The research found that this is the result of human [influence](#).

From 1960 to 2024, the study's writers [observed](#) an average yearly warming for January to March of 0.12 degrees Celsius per decade.

Since 2016, the reef has experienced five summers of mass coral bleaching. This is when large parts of the reef turn white due to heat stress. This also puts the coral at greater risk of death. The mass bleaching events happened during five of the six warmest years in the last four centuries, the study showed.

This research appeared on August 8 in the publication Nature.

"The world is losing one of its icons," said Benjamin Henley. He is with the University of Melbourne and is one of the study's co-writers.

"I find that to be an absolute tragedy. It's hard to understand how that can happen on our watch in our lifetime. So it's very sad," Henley added.

The last temperature measurement, from January to March of this year, was the highest on record. Henley added that it was "head and shoulders" above any other year, meaning it was much higher.

Coral reefs are important for many reasons. They protect [shorelines](#) from erosion. They are home to thousands of kinds of fish. And they are an important part of the tourism industry in many countries. In Australia, the Great Barrier Reef adds \$4.2 billion to the economy each year.

At least 54 countries and areas have experienced mass bleaching of their reefs since February 2023, as climate change warms the ocean's surface waters. That information comes from the U.S. National Oceanic and Atmospheric Administration.

Alasdair Pal reported this story for Reuters News Agency from Sydney, Australia. Anna Matteo adapted it for VOA Learning English.

2. Key phrases and vocabulary

First repeat after your tutor and then read aloud by yourself.

1. threat (n.) a danger

Air pollution is a threat to the health of millions of people worldwide.

2. core (n.) a scientific sample in which soil, rock, or ice is drilled into and pulled out of the ground

We know the temperature of the Earth in the past from ice cores from Antarctica.

3. influence (n.) a cause or part of a cause

Research shows that sports are a major positive influence on physical and mental health.

4. observe (v.) to see or learn of through data (usually in a science-related situation)

In the last few years, scientists have observed a larger number of typhoons than normal.

5. shoreline (n.) the area where the land (and beach) meet the ocean

The shoreline is home to many interesting seabirds.

3. Questions

Read the questions aloud and answer them.

1. Exactly how do we know that ocean temperatures in Australia are the hottest in 400 years?
2. What is coral bleaching?
3. Why are coral reefs so important in general? Why is the Great Barrier Reef important to Australia?
4. Have you ever been snorkeling at a coral reef before? If not, would you like to?
5. What shoreline, reef, or beach would you like to protect? Why?