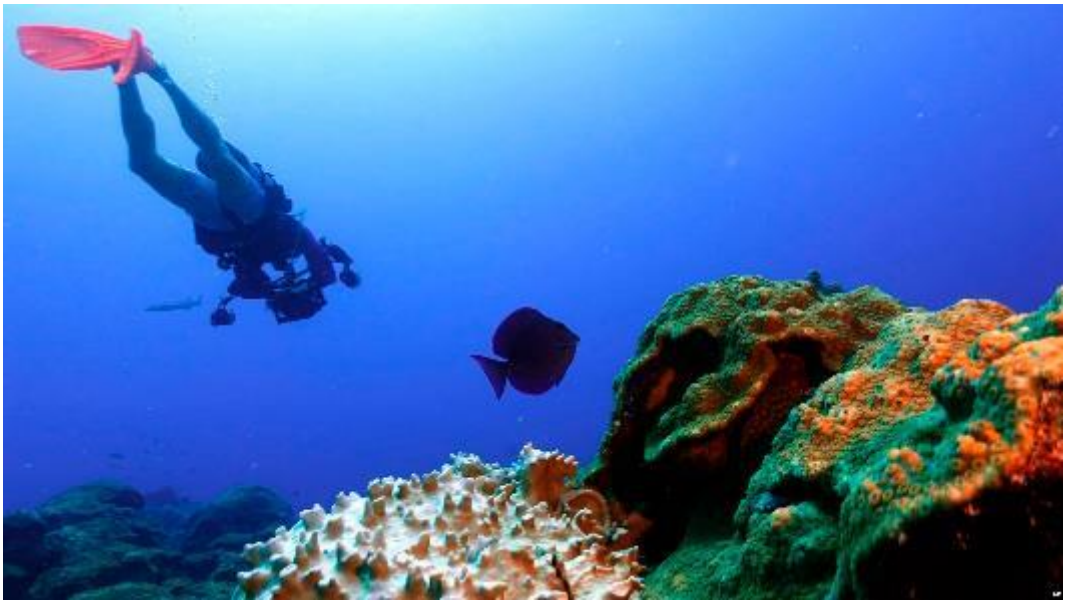
Scientists: Coral Bleaching Happens Around the World

今回は、世界中で進行しているサンゴの白化現象に関するニュースです。気候変動によって海水温が上がり、色鮮やかなサンゴが白くなってしまう白化（はっか）が深刻化しています。ちなみに、本文に登場する expel は「〜を排出する、放出する」という意味の動詞で、expel a substance（物質を排出する）や expel gas（ガスを放出する）のように、内側から外へ強制的に出すイメージを持ちます。サンゴ礁は観光や漁業にも関わる重要な存在。海の未来を守るために、私たちにできることは何でしょう？記事を読んで講師と話してみましょう。



1. Article

Read the following article aloud.

Scientists say coral reefs around the world, from Australia to Kenya, are experiencing **bleaching** for the fourth time in the last 30 years. They say the colorful undersea structures are turning white as a result of warming ocean waters.

The U.S. National Oceanic and Atmospheric Administration (NOAA) and the International Coral Reef Initiative said Monday that at least 53 countries, territories, or local economies have reported bleaching from February 2023 to now.

Coral bleaching happens when the small ocean animals face stress and **expel** the **algae** that provide them with energy and give them their color. If the bleaching is severe and long-lasting, the coral can die.

Why does it matter?

Coral reefs cover less than one percent of the ocean floor, but they help marine ecosystems and economies. Reefs are the rocky structures that corals create over time.

It is estimated that one fourth of marine life depends on reefs for shelter, food and as a place for reproduction. Coral reefs also help coastal communities by forming a protective barrier against storms and large waves. A 2022 study in the publication Marine Policy found that reefs help to avoid property damage for more than 5 million people worldwide.

The Global Coral Reef Monitoring Network estimates that reefs provide about $2.7 trillion in goods and services every year. That includes billions of dollars from tourism to the value of coastal protection. But rising sea temperatures and human destruction have endangered corals.

People have observed bleaching happening in different parts of the world for some time. In the world's largest coral reef, Australia's Great Barrier Reef, bleaching affected 90 percent of the coral observed by scientists in 2022. In the Florida Coral Reef, scientists reported notable bleaching last year.

But for scientists to declare a worldwide bleaching event, it has to be documented within each of the major oceans, including the Atlantic, Pacific, and Indian oceans, in both the Northern and Southern Hemispheres.

The fourth worldwide bleaching event

With bleaching happening in the Indian and Pacific oceans, NOAA experts expect that this worldwide bleaching event could be the most **extensive** yet.

Scientists have reported widespread bleaching in reefs in the Caribbean Sea. Last August coastal sea surface temperatures were between one and three degrees Celsius above normal. And scientists have documented huge "die-offs" across the area.

Lorenzo Alvarez-Filip is with the National Autonomous University of Mexico. He said, "What is happening is new for us, and to science." He added, "Everything that you can see while diving was white in some reefs."

What is happening now is being called the fourth worldwide bleaching event. The last one continued for three years and ended in May 2017. It was caused by the warm El Niño ocean current event that strongly influences the weather in some parts of the world. Two other bleaching events happened in 2010 and 1998.

Derek Manzello is the coordinator of NOAA Coral Reef Watch. He said in a statement, "More than 54 percent of the reef areas in the global ocean are experiencing bleaching-level heat stress." Manzello added, "As the world's oceans continue to warm, coral bleaching is becoming more frequent and severe."

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She said scientists are working to learn more about how coral deals with heat and to identify naturally heat-tolerant corals. But she added that it is “critical the world works to reduce carbon emissions.”

David Obura heads Coastal Oceans Research and Development Indian Ocean East Africa which is based in Mombasa, Kenya. He said the coral reefs are “going into a **decline** that we cannot stop, unless we really stop carbon dioxide emissions.”

I’m Dan Friedell.

Hai Do adapted this report for VOA Learning English from Associated Press and Reuters sources.

Source: Scientists: Coral Bleaching Happens Around the World
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2. Key phrases and vocabulary

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

1. bleaching (n.)　the situation in which coral loses all of the algae from its body

The Great Barrier Reef is well-known for experiencing **bleaching** because of hotter ocean temperatures.

2. expel (v.)　to throw out

A sneeze **expels** dust and pollen from your body.

3. algae (n.)　a kind of one-celled form of life

The water in the river turned green from the growth of **algae**.

4. extensive (adj.)　very thorough

Rescue teams are doing an **extensive** search to find the missing hiker.

5. decline (n.)　a drop or decrease

Until 2015, there was a huge **decline** in the number of people going hungry in the world.

3. Questions

Read the questions aloud and answer them.

1. **What causes coral bleaching?**
2. **What benefits come from having coral in the oceans? Consider the benefits both to people and other living things.**
3. **How can we stop coral bleaching from happening?**
4. **How might the bleaching and the death of corals harm the economy of an area?**
5. **Have you ever gone snorkeling or scuba diving?**