**Scientists: Increase of acids in ocean causes coral reefs to disappear**

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By AKIRA HATANO/ Staff Writer

Scientists have discovered the disappearance of hard coral reefs in areas of the sea with high levels of ocean acidification, such as the waters around Iwotorishima island in Okinawa Prefecture.

Ocean acidification, or a decrease in the ocean's pH, is expected to increase in the future across the planet due to carbon dioxide (CO₂) released into the environment by human industrial activities.

The disappearance of hard coral reefs could cause disastrous changes in the ocean ecosystem as they provide a habitat for thousands of fish species.

The researchers from the University of Tokyo and the University of the Ryukyus confirmed the results in the shallow waters east of Iwotorishima island, where CO₂ gases were spewing from the seabed, producing areas of high acidification.

In 2011, the researchers found that hard corals have disappeared in some places where the CO₂ concentration is more than twice as high as that of conventional sea areas. Instead of hard corals, soft corals, which do not build coral reefs, were covering the seabed.

In other places where the CO₂ concentration was more than three times higher than normal, even soft corals have disappeared.

On the other hand, in nearby places where the CO₂ concentration level was normal, only hard corals were living.

The researchers also confirmed the same results in experiments conducted in water tanks in their laboratories.

The results were announced in the British scientific journal Nature Climate Change on March 24.

The Intergovernmental Panel on Climate Change predicts that ocean acidification levels will be more than twice as high as the current level at the end of the century.

“If the sea acidification progresses, similar phenomenon (the disappearance of hard corals) could take place in various parts of the Earth,” said Shihori Inoue of the Graduate School of Science at the University of Tokyo.

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