



## SCIENCE & TECHNOLOGY

# Scientists Learn What Killed Caribbean Sea Urchins

April 21, 2023

Scientists say a small **parasite** is the cause of death of many sea urchins in the Caribbean Sea.

Sea urchins are simple animals that have long **spines**.

Last year, the long-spined sea urchins, also known as *Diadema antillarum*, started getting sick. They were losing their spines and their **sticky** feet were losing their grip on the coral reefs.

The loss of so many sea urchins, which eat algae that grow on the corals, affected the undersea environment from the Virgin Islands to Puerto Rico to Florida.

Mya Breitbart led a team of scientists who investigated the sickness. She is a marine microbiologist at the University of South Florida.

The team presented their study recently in the scientific publication *Science Advances*.

“The case is closed,” Breitbart said.

The scientists compared the sick urchins to healthy ones and determined a single-celled parasite was to blame.

Ian Hewson is a marine disease researcher at Cornell University in the state of New York. He said the team ruled out bacteria or viruses. But the team did see single-celled organisms called ciliates in the sick urchins.

The scientists then put a group of healthy sea urchins grown in a laboratory in a tank with some of the parasites. Six of the 10 urchins in the tank later died.

The scientists are now working to find a way to prevent future losses. They do not have a treatment for the sea urchins, but they are hoping to learn how the parasites spread so they can stop them.

Breitbart noted another time that many sea urchins died in the 1980s. She did not know if the same parasites caused that problem.

Don Levitan is a **marine** scientist at Florida State University who was not involved in the study. He said the two urchin die-offs, or widespread losses of the animals, have changed the coral reefs in the Caribbean Sea. He said at one time, they were covered with spiny urchins, but now they are covered in algae, sick from disease and **stressed** by rising water temperatures.

“Coral reefs in the Caribbean are in trouble,” he said. “We are at a different place than we were 30, 40 years ago.”

I’m Dan Friedell.

*Dan Friedell adapted this story for Learning English based on a report by the Associated Press.*

---

## Words in This Story

**parasite** *-n.* a plant or animal that lives by taking food or shelter from another living thing

**spine** *-n.* a sharp, pointy part of an animal or plant

**sticky** *-adj.* a quality of being easily stuck to

**marine** *-adj.* related to the sea

**stressed** *-adj.* feeling worried or tired; showing the effects of disease or difficulty

---

*We want to hear from you. Do you think the scientists will be able to help the sea urchins?*

*Here is how our comment system works:*

- 1. Write your comment in the box.*
- 2. Under the box, you can see four images for social media accounts. They are for Disqus, Facebook, Twitter and Google.*
- 3. Click on one image and a box appears. Enter the login for your social media account. Or you may create one on the Disqus system. It is the blue circle with "D" on it. It is free.*

*Each time you return to comment on the Learning English site, you can use your account and see your comments and replies to them. Our comment policy is [here](#).*

---