



PRESS RELEASE

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University of Guam researcher discovers new diatom species in Micronesia

Christopher Lobban, a University of Guam professor emeritus of biology, has discovered an interesting new species of diatom from the Marshall Islands. His discovery is in addition to [two potentially new diatom species found earlier this year](#) by UOG student Gabriella Prelosky and [five potentially new species](#) found earlier this year by UOG student Britney Sison.

The study, which was funded by the University's [National Science Foundation EPSCoR grant](#), was accepted in October for publication in the peer-reviewed journal [Diatom](#), a publication of the Japanese Society of Diatomology.

Diatoms are single-celled algae found in oceans, lakes, and rivers. They are considered important primary producers on Earth. According to Lobban, diatoms produce an estimated one-fifth of the oxygen in the air we breathe.

The new species of diatom, *Licmophora complanata*, was named for its flattened cell wall.

According to Lobban, the diatom was found in a sample of algae from Majuro Atoll that he collected in 1990. *Licmophora* is a genus of benthic diatoms. Diatoms within this genus are common and epiphytic — meaning that they perch on seaweeds, like orchids perch on trees.

"It's a really odd-looking *Licmophora*," Lobban said. "*Licmophora* are sort of people-shaped. They have a top and bottom and a front and back. The dead shells can usually be seen in the front and back views, but this one was always giving me a side view."

Lobban was able to thoroughly examine the specimen once the Microscopy Teaching & Research Laboratory, which he runs, received a new Scanning Electron Microscope through the EPSCoR grant in May 2021.

"The microscope has a stage that allows you to tilt it up to 80 degrees while examining a specimen," Lobban said. "When I did that, I was able to see its shape, which is actually kind of complicated."

According to Lobban, this is not the first time he has named a species of *Licmophora*. "It's not a huge genus and there are not many people working on it in the world. Most of the species here seem to be new to science. This is the 16th *Licmophora* I've named," Lobban said, "and I'm not done with them yet. I'm working on a paper now with seven more species. It and several of the others have student co-authors."

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Photo Caption 1:

Christopher Lobban, a University of Guam professor emeritus of biology, has discovered a new species of diatom from the Marshall Islands. The screen of the Scanning Electron Microscope shows the tilted view of the new species, which Lobban has named *Licmophora complanata*.

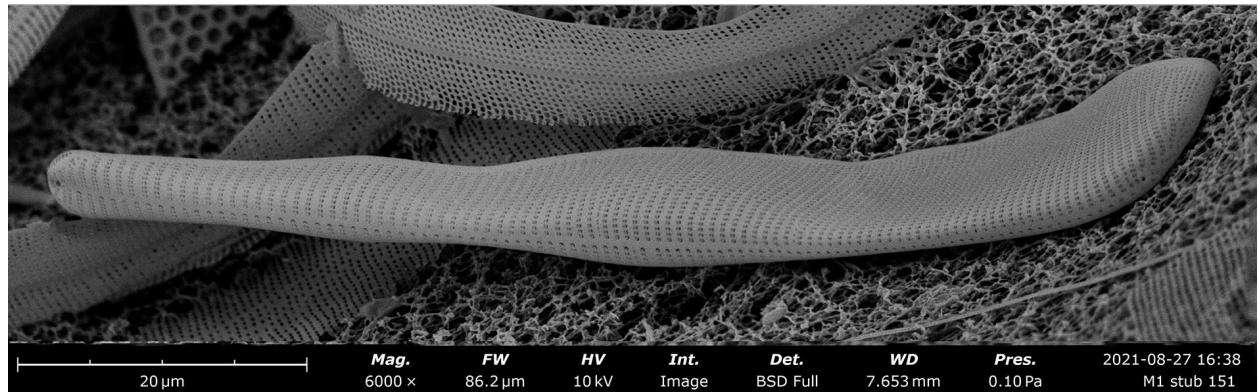


Photo Caption 2:

This new species of diatom, *Licmophora complanata*, was named for its flattened cell wall. The diatom was found in a sample of algae from Majuro Atoll collected in 1990.

Photos courtesy of Guam NSF EPSCoR and Christopher Lobban