

[http://www.virginislandsdailynews.com/news/coral-disease-affecting-v-i-reefs-is-a-dire-threat/article\\_7e9a93a5-d528-5ff7-a602-d623e93b3c2b.html](http://www.virginislandsdailynews.com/news/coral-disease-affecting-v-i-reefs-is-a-dire-threat/article_7e9a93a5-d528-5ff7-a602-d623e93b3c2b.html)

# Coral disease affecting V.I. reefs is 'a dire threat'

By Elliott Davis Daily News Staff 7 hrs ago



Marilyn Brandt, a research associate professor at the University of the Virgin Islands, stands over a water table containing samples of coral with Stony Coral Tissue Loss Disease.

**Daily News photo by ELLIOTT DAVIS**

Marilyn Brandt, a research associate professor at the University of the Virgin Islands' Center for Marine and Environmental Studies, is part of a team fighting a disease that is not slowing down.

No, the disease is not harmful to humans, Brandt said. But it is harming — killing, in reality — something that Virgin Islanders should care about: coral reefs.

For Brandt, this fight is personal.

“This kind of threat, I think about my kids not seeing these reefs anymore,” Brandt told The Daily News. “Instead of it being the scientific interest of understanding disease driving me with this, it’s my kids’ future driving me to study this, because it’s such a dire threat.”

Brandt is leading a team of UVI researchers studying Stony Coral Tissue Loss Disease, a disease that attacks tissues in up to 24 different species of coral — ultimately killing them. White spots on corals indicate the presence of the disease, Brandt said, and the primary species affected are brain and pillar corals.

The disease was first observed in V.I. waters in January, according to the website for the Virgin Islands Established Program to Stimulate Competitive Research (EPSCoR).

Leslie Henderson, the coral reef initiative coordinator with DPNR’s Coastal Zone Management, told The Daily News that Florida has been fighting the disease in its waters since 2014.

During a meeting about Florida’s disease response that Brandt attended, the UVI researcher said someone told her that the disease had been observed off St. Martin.

While that sighting was never confirmed, she said, she almost immediately wrote a proposal to develop a “disease outbreak response program” for the V.I., in case the disease ever showed up in the territory.

The same week she submitted the proposal, the disease was found off St. Thomas.

Now — approximately six months after the first sighting — the disease is killing corals near St. Thomas and moving “kind of quickly,” Brandt said. Brandt estimates that Flat Cay — the site of the most “severe” presence of the disease — has already lost approximately a third of its coral cover. The disease has also affected numerous other areas off the southern coast of the island, as well as some areas off the north side, such as east of Botany Bay. It was even spotted for the first time recently off Hassel Island.

While researchers still do not know for sure what causes the disease, or how it traveled all the way down from Florida to the V.I., the team is learning more and more about it every day. Brandt said the disease is likely waterborne and not transported by fish. She also theorized that it arrived in St. Thomas through shipping ballast water, but the team cannot confirm that for sure.

“It’s very suggestive that the main sites affected... happen to also be by the shipping area,” Brandt said.

What is not a theory is that the disease is a serious threat to coral reefs in the V.I.

For a comparison, Brandt mentioned the flu — which, believe it or not, corals can get. She said there can be severe outbreaks of coral flu, but “typically, it stops.”

“This disease is more like Ebola,” Brandt said. “It comes in, it kills corals completely, and it doesn’t seem to be stopping. It’s highly contagious.”

Henderson and her team at CZM, including education and outreach coordinator Kitty Edwards, are worried about what the disease is already doing to the V.I.’s coral reefs.

“I’m extremely concerned,” Henderson said. “I think that this is a major threat to our reefs and it’s one that we don’t necessarily know how to stop. So, it’s very concerning. It has the potential to drastically change our coral reef systems for the worse.”

Edwards added that one of the more frightening aspects of the disease is the element of the unknown.

“The world of coral disease research is fairly new, and so to have a new disease come in is very scary,” Edward said.

Brandt said that while the disease has not yet been spotted off St. Croix or St. John, Henderson is coordinating a “strike team” to monitor the reefs off St. Croix with the possibility that it shows up there eventually.

“We’re trying to help predict when it might arrive,” Brandt said. “It’s a really serious situation that has kept me up at night.”

While the threat of the disease is serious, UVI and CZM are not alone in the fight. Brandt and her team of researchers are collaborating with stateside institutions such as Woods Hole Oceanographic Institution in Massachusetts and Louisiana State University, where samples of diseased corals are being analyzed. Henderson said that CZM, which has taken on the role of coordinating the response to the disease and communicating information about it, has also partnered with the National Park Service, The Nature Conservancy, and Caribbean Oceanic Restoration and Education Foundation, among other organizations.

Brandt said that while her team does have help, the general lack of resources has made things difficult.

“This is like one of 10 projects I’m working on right now... but it’s the most important, because everything else depends on these corals,” she said.

While Henderson said that hope is something her team is “constantly looking for,” there are some signs for optimism.

Brandt showed The Daily News samples of some corals where her team has had success in cutting the diseased area off and wrapping molding clay around the healthy portion like a bandage — and it “seems to be working.” The UVI team is also trying a culling experiment, where they are removing diseased corals from the ocean to see if taking them out of their environment reduces the “pathogen load and the spread.” Brandt said they should know the results of that experiment in approximately six months.

In Florida, Brandt said a probiotic has been identified as a possible cure, but it is in the early stages of testing and scalability is a concern. It has also been observed that the disease does not do well in warmer waters off Florida, so with temperatures rising for the summer in the V.I., “we might get a reprieve,” Brandt said.

Henderson said she recently submitted three different proposals with the hope of securing additional funding for the disease response. The status of those proposals will be clearer later in the summer, and if funding is approved, it would become available around October, Henderson said.

In the meantime, Brandt’s team is being funded by \$30,000 from the National Science Foundation aimed at supporting the response to the disease outbreak.

Brandt, Henderson, and Edwards all said the public can play a key role in the coral disease response.

Brandt said that anyone can help by simply not touching the diseased corals — you should not be touching corals anyway, she said — and wearing reef-safe sunscreen.

The public is also encouraged to report possible sightings directly to CZM, ideally with accompanying photos to help experts determine if the disease is actually present. Reports can also be submitted through the BleachWatch VI app.

“If you have your favorite corals... and you see it starting to get white patches,” Brandt said, “then definitely report it, and we will try to get out there and look at it.”

Edwards added that locals and visitors are encouraged to “help in any way that they can.”

“Not much of the community are experts in coral disease, and so we’re really trying to push just the general protection of coral and making responsible choices in their everyday lives,” Edwards said. “As eyes in the water, they can help us even without the experience that the UVI researchers have.”

CZM, UVI, and some local dive shops even have disease identification cards available to help teach the public about how to spot it. More information about the disease can also be found at [viepscor.org/sctld-outbreak](http://viepscor.org/sctld-outbreak).

If there is another silver lining to be found in the cracks of these diseased corals, Brandt said it is the territory’s rapid and collaborative response.

“What’s impressive is the Virgin Islands has had a very coordinated and, I think, thorough response given the level of resources we have here,” Brandt said. “So, I’m actually very proud of what we’ve done so far.”

Henderson — who, given her reef-focused career, sees this disease as personal threat like Brandt does — urged the public not to take the V.I.’s coral reefs for granted. She is certainly not taking them for granted herself.

“I’ve been looking at some of those massive corals, some of the big, 100-year-old brain corals,” Henderson said, “and just taking a moment to give them a word of encouragement under the water.”

---

Elliott Davis