

Tue February 26, 2019 4:21 AM

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Deadly Coral Disease Found in Multiple Sites

By Bernetia Akin - February 25, 2019



White patches on a brain coral at Black Point illustrate the rapid spread of the destructive SCTL disease attacking reefs in V.I. waters. (Photo by Sonora Meiling)

If there was any doubt, it's now clear that an unusually aggressive coral disease has a foothold in the Virgin Islands – on the southwest end of St. Thomas. The disease does not directly harm humans, but it has the potential to devastate the territory's reef system, upsetting the ecosystem and damaging fishing and marine tourism industries.

The good news is that searches for outbreaks have so far found no evidence of the pathogen in waters off St. John or St. Croix nor on the east and north sides of St. Thomas. The bad news is there is no guarantee it won't spread throughout the territory.

Approximately half of the coral species that inhabit V.I. waters are susceptible to what is known as Stony Coral Tissue Loss Disease, according to a statement from the V.I. Department of Planning and Natural Resources.

And it acts quickly, particularly against some species such as pillar and brain coral.

Marilyn Brandt, a coral expert and professor at the University of the Virgin Islands, made the first discovery in V.I. waters on Jan. 31, at Flat Cay off St. Thomas's west end.

A team of researchers had last visited the site on Dec. 4, as part of an annual assessment of the territory's reef system, Brandt said.

"It (SCTL) was not present at that time," she said in an interview Sunday. Now, 20 percent of the coral cover at Flat Cay is gone. "It's burning through there really fast."

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Park divers are on the hunt for signs of the disease throughout the territory. The government is also asking professional divers and members of the public to report any suspicious sightings so they can be checked out.

As of Feb. 12, as illustrated on a CZM web page (see link below) SCTLD had been found in 11 of the 34 areas that were searched either by divers or by a dropped underwater camera. Of the 11, six sites were listed as having "moderate" damage, and five were tagged "severe."

"This is pretty scary for us," J-P Oriol, DPNR commissioner designee, told the Source in an interview early this month. "We don't know how quickly it can spread here."

In Florida, where it first appeared near Miami in 2014, it already has moved hundreds of miles southward along the reef track through the Keys.

"This is such an important issue," said Kitty Edwards, education and outreach coordinator for CZM. "We're asking for everybody's help."

The department hosted a public meeting last week on St. Thomas to educate people about the coral disease. A second meeting is scheduled for 6 p.m. March 7 on the 3rd Floor of the Market Place in Cruz Bay, St. John. Edwards said there will be a meeting scheduled for St. Croix soon.

The Fight

While the case is daunting, efforts are underway to fend off the disease.

"We're hoping to keep it from taking all the reefs out," Brandt said. "I don't think it's possible to stop it from spreading ... There's so much reef area in the Virgin Islands" and not a lot of trained manpower to mount a good defense.

The idea is to slow its progress, hoping that a cure will be developed or that it will die out naturally, as most coral diseases do, before it becomes catastrophic, and meanwhile to protect some coral that could be used to repopulate reefs.

"Eventually it will burn itself out," Brandt said, although she also noted "In Florida, that hasn't happened yet and it's been four years."

She did sound a few optimistic notes.

"We've caught this very early," she said, giving the territory an advantage that Florida did not have.

And she has access to both sea and land-based nurseries where samples of coral can be protected and nurtured and used to replace coral lost to SCTLD once it has been eliminated.

Logan Williams, the coral expert at Coral World Marine Park, is helping with that effort.

"I have a small, land-based nursery facility," Williams said. She started it just a few months ago to house pieces of coral taken from healthy specimens in a process known as fragmentation that promotes more rapid growth.

As it happens, Williams was a graduate student at UVI and Brandt was her advisor, so she was quick to say "yes" when Brandt asked her to take in a few pieces of coral to protect them from getting infected by SCTLD.

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infected coral, and it has tried “amputating” effected sections of coral.

“We’re trying to learn from what they’ve been doing,” Brandt said.

She sees the antibiotic paste as “sort of a last resort” especially because too little is known about its side effects; scientists could simply be curing one problem by introducing another. But she is pursuing federal grant money for the amputation process and the harvesting of coral to move to protected sites. She has also applied for the necessary CZM permits.

What started all this?

Assuming the disease affecting V.I. reefs traveled here from the Florida reef track – and Brandt said that is the most logical explanation – how did it get here?

“There was a lot of discussion about that” at last week’s public meeting, she said.

The area where it has established itself is near an outflow from a water treatment plant, she said. It is also downstream from a shipping area.

Many of those boats carrying cargo from the states – primarily, from Florida ports – also carry water ballast.

“They do a lot of ballast water exchange,” Brandt said. The pathogen does travel through water, so that makes for a suspicion, but she stressed, “We can’t confirm that” as a cause.

Whatever the cause, efforts are focused now on a cure.

Brandt and Edwards both noted that the healthier a reef is when it encounters a pathogen, the better.

“We’re encouraging everyone to protect all coral reefs,” Edwards said. “The more we protect our coral the better they are to resist any disease, not just this one.”

More information is online at dpr.vi.gov/czm/SCTLD.
