

CORAL DISEASE



Reports indicate that Southeast Florida is experiencing a coral disease outbreak. DEP's Coral Reef Conservation Program (CRCP) and the Florida Reef Resilience Program are working to characterize the prevalence of the outbreak and to understand potential contributing environmental factors. The first reports of widespread coral disease originated in June 2015 in Miami-Dade County. Since then, disease also has been observed in Broward County, Palm Beach County and Biscayne National Park.

About Coral Disease

Coral disease is often visible as a change in tissue color or skeletal structure and may be accompanied by tissue loss, indicating death of the coral.

The origin of coral diseases, which can be viral or bacterial, is difficult to determine and not clearly understood. Viruses, bacteria, other microorganisms or even changes in environmental conditions can contribute to coral disease. A certain amount of infectious microbes that cause coral diseases are naturally occurring and always present in an ecosystem; however, an event or combination of events that disrupts the natural levels can encourage coral disease.

Research has shown that increases in water temperature, nutrient (sewage) input, storm water runoff and turbidity or sedimentation are contributing factors to coral disease. Additionally, coral bleaching severely weakens corals and makes them more susceptible to disease. Coral bleaching is a stress response that leaves corals in a compromised state and makes it more difficult for them to return to full health.



*Symmetrical Brain coral (*Pseudodiploria strigosa*) with tissue loss due to active coral disease. Photo: Ana Zangroniz/CRCP*

It is uncertain how coral disease is transmitted, although local currents may be a contributor to the relatively rapid spread of the white plague disease/the 2015 disease outbreak.

FAST FACTS

The Florida Reef Tract:

- Spans 358 miles
- Contributes \$6.3 billion to local economy
- Provides 71,000 jobs in the Southeast Florida region
- Supports more than 6,000 marine species
- Home to more than 40 species of stony coral, including seven listed as "Threatened" under the Endangered Species Act
- First line of coastal protection during major storms, slows wave action, minimizing flooding and erosion

continued

Response Efforts

DEP's Coral Reef Conservation Program (CRCP), the Florida Reef Resilience Program (FRRP) and other partners are documenting how common the current disease outbreak is to understand potential contributing environmental factors.

Partners have all been trained in the same coral bleaching and disease identification procedures and use a standard data collection protocol to conduct underwater Disturbance Response Monitoring surveys. The surveys are conducted annually across the Florida Reef Tract from the Dry Tortugas to Martin County during a six- to eight-week period of peak high water temperatures.

These surveys assess the occurrences and extent of the current disease outbreak across Southeast Florida as well as provide the necessary information to develop effective management strategies for Florida's coral reefs.

Next Steps

CRCP is working with federal, state and local partners and stakeholders to improve conditions and reduce coral stressors. These efforts include:

- » Assess the primary and secondary causes of this outbreak;
- » Collect reports and continue environmental monitoring to determine the locations and extent of disease.

How Can You Protect Reefs?

- » **Use navigational charts to locate coral reefs.**
Refer to [nautical charts](#) to determine if you are boating in a known reef area. From the water's surface, reefs appear golden-brown. Remember: Brown, brown, run aground; blue, blue sail on through.
- » **Tie up to mooring buoys or anchor in sand.**
Boaters, divers and snorkelers can reduce physical impacts to corals by using mooring buoys instead of anchoring directly on or near a reef. [Find mooring buoy locations](#).
- » **Eliminate marine debris and pollution.**
Pump out your sewage only at marina pump-out stations and dispose of trash in designated areas.
- » **If you dive or snorkel, don't touch!**
Avoid kicking or touching the corals. Disturbed sediments can smother and kill corals, so take care to stay off the bottom and avoid kicking up sand. If you see signs of coral disease while diving, avoid visiting other sites to prevent spreading the disease.
- » **Avoid trolling for fish above shallow reefs.**
Anglers should avoid shallow coral reefs when trolling.
- » **Follow fishing regulations.**
Fish and marine invertebrates, like lobster, crabs and shrimp, are integral to maintaining healthy reef ecosystems. [Learn and observe fishing regulations](#), seasonal closures and bag limits.



Report observed coral disease or coral bleaching to Southeast Florida Action Network (SEAFAN) [online](#) or call 866-770-7335

Reports of 'No Bleaching' are just as important as bleaching reports.

SEAFAN is a reporting and response system designed to improve the protection and management of Southeast Florida's coral reefs by enhancing marine debris clean-up efforts, increasing response to vessel groundings and anchor damage, and providing early detection of potentially harmful biological disturbances.