

CORAL BLEACHING



About Coral Bleaching

Coral bleaching is a stress reaction of the coral animals that happens when they expel their symbiotic algae, zooxanthellae, which is their main food and energy source. Bleached corals are living but are less likely to reproduce and are more susceptible to disease, predation and mortality. If stressful conditions subside soon enough, the corals can survive the bleaching event; however, if stresses are severe or persist, bleaching can lead to coral death.



Completely bleached coral. Photo: DEP Coral Reef Conservation Program.

Causes of Coral Bleaching

Large-scale coral bleaching events are driven by extreme sea temperatures and are intensified by sunlight stress associated with calm, clear conditions. The warmest water temperatures usually occur between August and October. Corals become stressed when sea surface temperature is 1 degree C greater than the highest monthly average. Coral bleaching risk increases if the temperature stays elevated for an extended time.

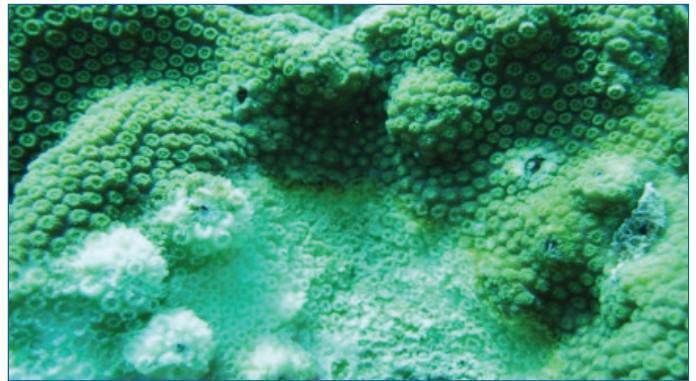
While records show that coral bleaching events have been occurring for many years throughout Southeast Florida,

NOAA indicates that bleaching events have steadily increased in frequency and severity during the last few decades. Coral bleaching can be caused by other stressors including but not limited to pollution, increased sedimentation and salinity, low oxygen, disease and predation. Not all corals are affected by bleaching in the same way. Reef communities are composed of a different mix of corals, and some reefs are affected more than others.

How to Recognize Coral Bleaching

Corals that are stressed may first pale and then bleach completely. Different species of corals with assorted colors of zooxanthellae may show lighter variations in their color during the paling phase. Fully bleached corals will appear snow white. It is possible to see the transparent coral polyp, resembling a tiny anemone, on bleached but still living coral (Figure 4).

If the coral colony is recently dead, there will be no transparent coral polyp tissue, just the bare white calcium carbonate skeleton.



Bleached but still living coral. Photo: DEP Coral Reef Conservation Program

Report observed 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 grounding and anchor damage and providing early detection of potentially harmful biological disturbances.