

Summary: Based on climate predictions and field observations, the threat for mass coral bleaching in southeast Florida between Miami-Dade and Martin counties is currently **MODERATE**.

Environmental Monitoring

Climate predictions for this current conditions report are based on NOAA Coral Reef Watch (CRW) satellite imagery products, which summarize sea surface temperature (SST) data and provide an indication as to when conditions are favorable for coral bleaching. The current CRW 5 kilometer (km) Satellite Coral Bleaching Alert Area indicates that southeast Florida is presently experiencing moderate thermal stress; there is a bleaching watch or warning for the entire region (Figure 1):

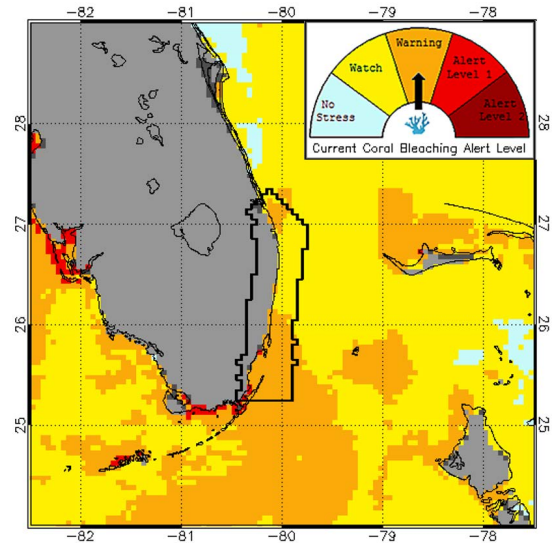


Figure 1. NOAA Coral Reef Watch Southeast Florida Satellite Coral Bleaching Alert Area. July 15, 2015.
http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

- NOAA's experimental 5-km Coral Bleaching Hotspots Map (Figure 2) compares current SST to the maximum monthly mean, which is the average temperature during the warmest month of the year. Corals start to become stressed when SST is 1°C greater than the highest monthly average. Currently, SST is slightly elevated and has surpassed the 1°C Hotspot bleaching threshold in nearshore areas of Miami-Dade and Broward counties.

- Coral bleaching risk increases if the temperature stays elevated for an extended period of time. NOAA's 5-km Degree Heating Weeks (DHW) Map (Figure 3) shows the accumulation of temperature stress over the previous 12 weeks, with 1 DHW equal to one week at 1°C greater than the maximum monthly mean. Currently, this map indicates that there is a slight accumulation of temperature stress in portions of Miami-Dade, Broward and Martin counties.

- Near real-time data from CRW's new 5-km Satellite Regional Virtual Station for southeast Florida indicates that SST in the region is currently above the maximum monthly average and has surpassed the bleaching threshold (Figure 4).

The Florida Department of Environmental Protection's Coral Reef Conservation Program staff will continue to monitor NOAA's Hotspot, DHW and Alert Area maps, as well as Virtual Station data for the remainder of the summer bleaching season.

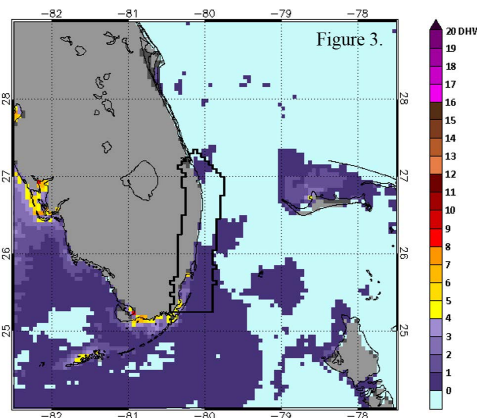
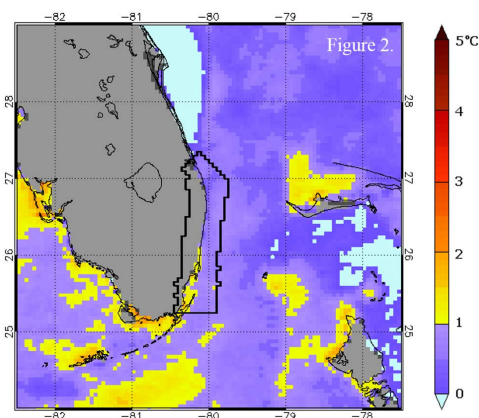


Figure 2. NOAA CRW Southeast Florida Coral Bleaching Hotspots. July 15, 2015.
http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

Figure 3. NOAA CRW Southeast Florida Degree Heating Weeks. July 15, 2015.
http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

Observer Network

A total of 14 BleachWatch Observer Network reports were received during the last two weeks, from reefs located in Miami-Dade (5 reports), Broward (5 reports) and Palm Beach (4 reports) counties. Of these reports, 11 indicated observations of bleaching across 1-10% of coral cover, while 3 observed no significant signs of coral bleaching. All observations from Miami-Dade and one from Broward reported the predominant condition as "bleached with algae" which is used to describe corals with recent tissue mortality. The remaining reports from Broward and Palm Beach included isolated observations of paling or partial bleaching. Several reports also noted the presence of disease.

Bleaching observations were made for a range of species, including Encrusting/ Mound/Boulder corals (*Siderastrea siderea*, *Stephanocoenia intersepta*, *Montastraea cavernosa*), Brain corals (*Pseudodiploria strigosa*), and Leaf/ Plate/Sheet corals.

While these isolated observations do not necessarily indicate the onset of a mass bleaching event, more field observations from southeast Florida's reefs are needed. The Southeast Florida Coral Bleaching Outlook (Figure 5) indicates that the region is likely to experience increased warming in the coming weeks, with the potential to have an Alert Level 1 within 5 weeks, and an Alert Level 2 within 9 weeks. The BleachWatch Observer Network is encouraged to continue submitting observations on coral condition after every visit to the reef. **Remember, reports of 'No Bleaching' are just as important as bleaching reports!** To submit a report on coral condition in southeast Florida, or for more information on the SEAFAN BleachWatch Program, please visit www.SEAFAN.net and click "BleachWatch."

For more information about SEAFAN BleachWatch or to organize a training session for your group to become a part of the Observer Network, please contact the Program Coordinator below.

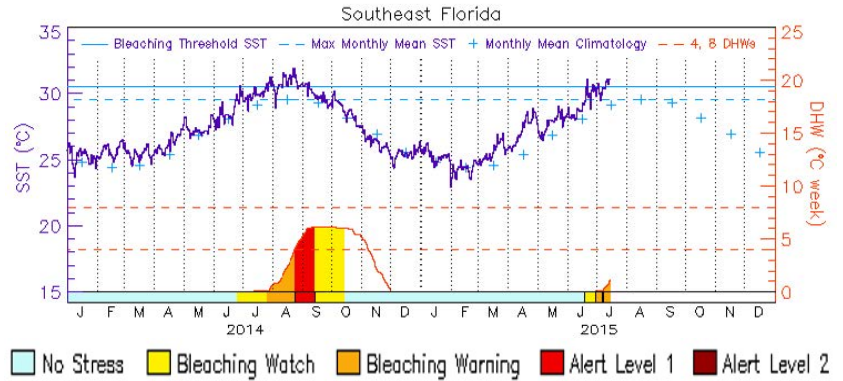


Figure 4. NOAA CRW Virtual Station Data; January 1, 2014 – July 15, 2015. http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

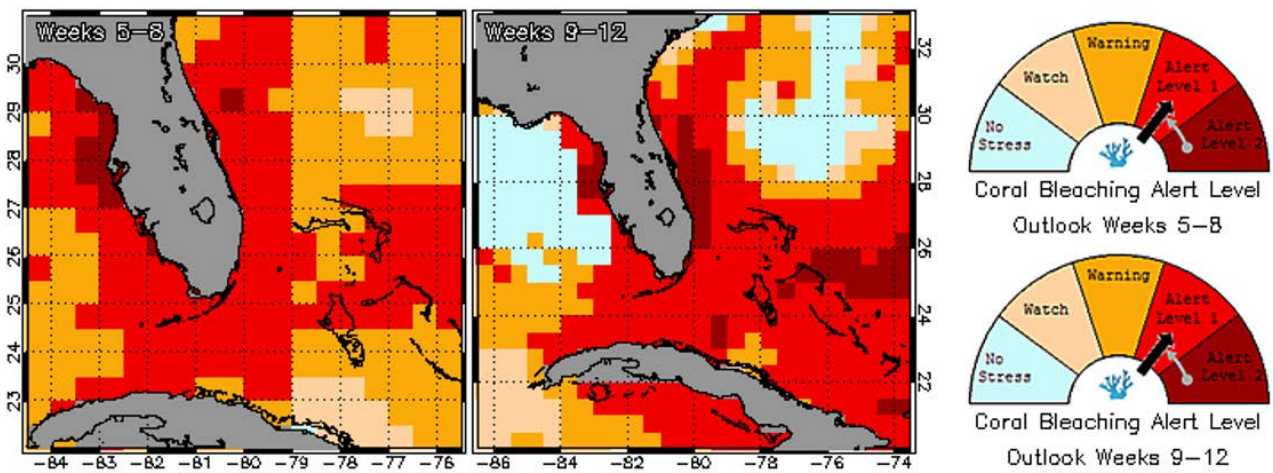


Figure 5. Southeast Florida Coral Bleaching Outlook for weeks 5-8 and 9-12; issued July 15, 2015. http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

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