

**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**

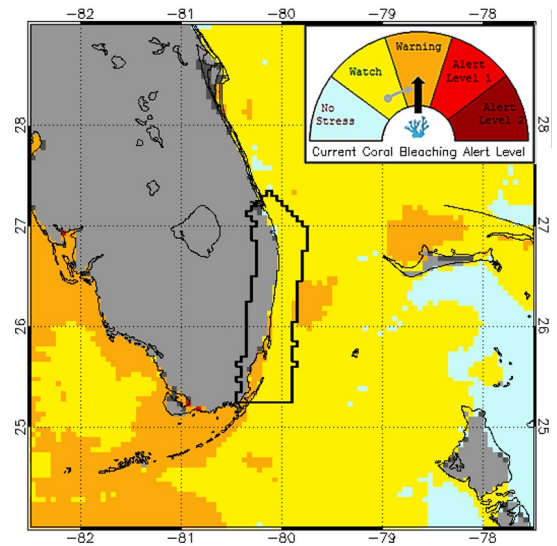
Climate predictions for this current conditions report are based on NOAA Coral Reef Watch (CRW) satellite imagery products, which summarize sea surface temperature (SST) data and provide an indication as to when conditions are favorable for coral bleaching. The current CRW 5 kilometer (km) Coral Bleaching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

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 areas of Miami-Dade and Broward counties.

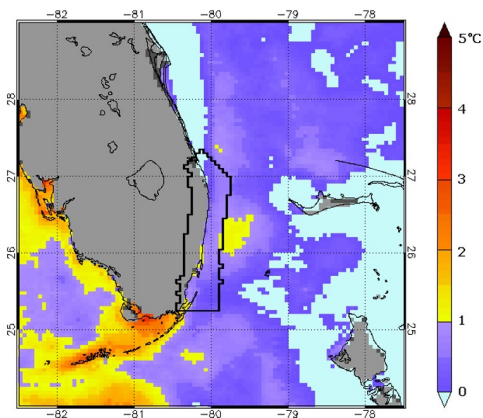
Coral bleaching risk increases if the temperature stays elevated for an extended period of time. NOAA's 5-km Degree Heating Weeks (DHW) Map (Figure 3) shows the accumulation of temperature stress over the previous 12 weeks, with 1 DHW equal to one week at 1°C greater than the maximum monthly mean. Currently,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

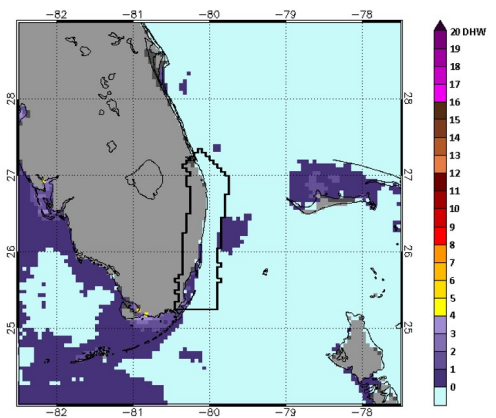


**Figure 1.** NOAA Coral Reef Watch Southeast Florida Coral Bleaching Alert Area. June 30, 2015.  
[http://coralreefwatch.noaa.gov/vs/gauges/southeast\\_florida.php](http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php)



**Figure 2.** NOAA CRW Southeast Florida Coral Bleaching Hotspots. June 30, 2015.  
[http://coralreefwatch.noaa.gov/vs/gauges/southeast\\_florida.php](http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php)

**Figure 3.** NOAA CRW Southeast Florida Degree Heating Weeks. June 30, 2015.  
[http://coralreefwatch.noaa.gov/vs/gauges/southeast\\_florida.php](http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php)



## Observer Network

A total of 18 BleachWatch Observer Network reports were received during the month of June, including 1 from Biscayne National Park in Miami-Dade County, 8 from Broward County and 9 from Palm Beach County. Of these reports, 11 indicated observations of bleaching, while 7 reports from Palm Beach County indicated that no bleaching was observed. Of the bleaching reports, the majority included observations of paling or partial bleaching on isolated colonies comprising 1-10% of coral cover at those locations, although one report each indicated observations of 11-30% bleaching and 31-50% partially bleaching. Two reports also noted signs of mortality, which were associated with observations of coral disease.

Corals exhibiting signs of thermal stress ranged from shallow areas between 10 – 20 feet off of Miami-Dade and Broward, to deeper areas between 50 and 65 feet offshore of Broward and Palm Beach. Where reported, water temperature ranged from 78 - 86°F.

Bleaching observations were noted for a range of species, including Encrusting/Mound/Boulder corals, Brain corals, Branching/Pillar corals, Leaf/Plate/Sheet corals and Flowering/Cup corals. Additional observations included bleached *Palythoa* spp., and gorgonians (Figure 5).

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; widespread coral bleaching could develop if current conditions continue or worsen. 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](http://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.*

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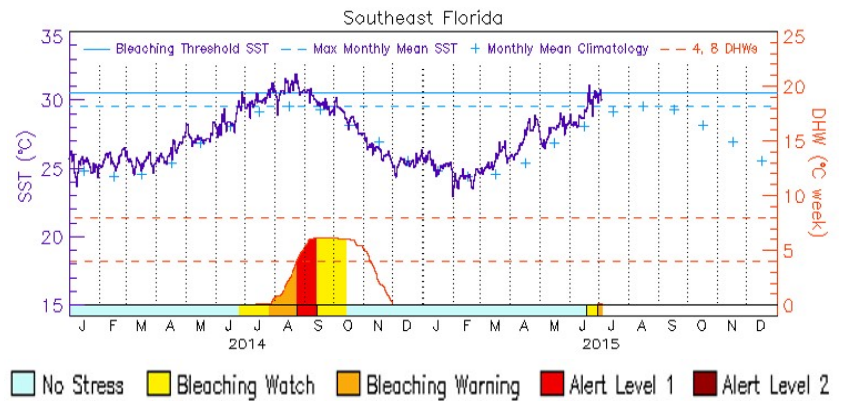


Figure 4. NOAA CRW Virtual Station Data; January 1, 2014 – July 4, 2015.

[http://coralreefwatch.noaa.gov/vs/gauges/southeast\\_florida.php](http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php)



Figure 5. A partially bleached colony of *Oculina diffusa* observed on 6/22/2015 in Broward County. Photo credit: Jenny Wuenschel.

### Program Partners:

