

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 warning for the majority of the region (Figure 1):

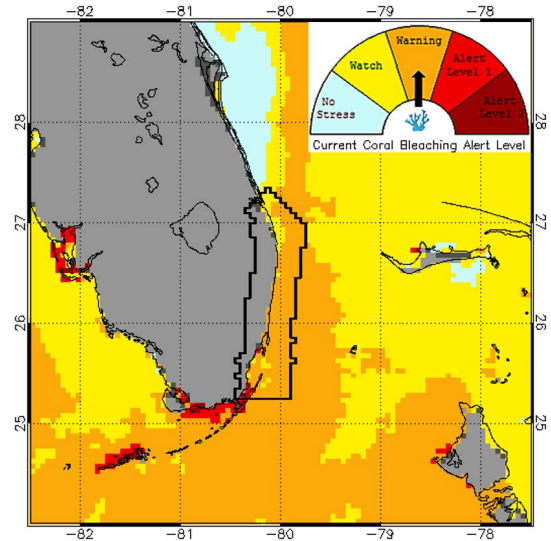


Figure 1. NOAA Coral Reef Watch Southeast Florida Satellite Coral Bleaching Alert Area. July 28, 2015. http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

- 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 areas of Miami-Dade, Broward, and Martin 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 temperature stress has begun accumulating across the majority of southeast Florida.

- 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 is hovering around 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.

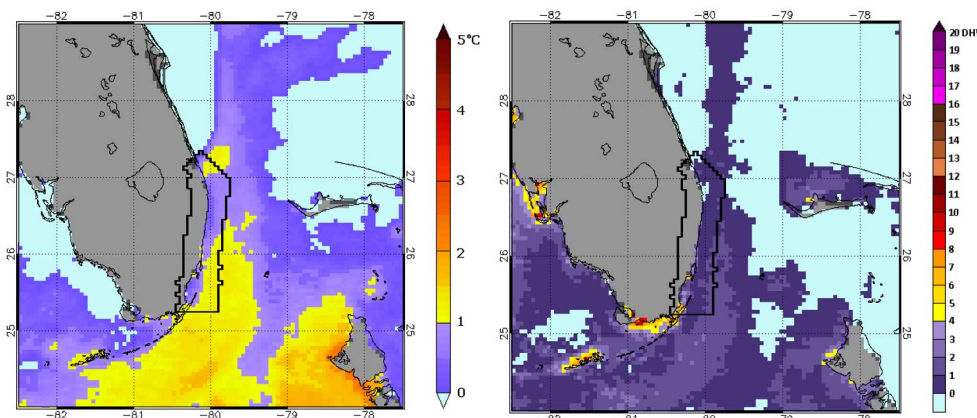


Figure 2. NOAA CRW Southeast Florida Coral Bleaching Hotspots. July 28, 2015. http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

Figure 3. NOAA CRW Southeast Florida Degree Heating Weeks. July 28, 2015. http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

Observer Network

A total of 12 BleachWatch Observer Network reports were received during the last two weeks, from reefs located in Miami-Dade (6 reports), Broward (5 reports) and Palm Beach (1 report) counties. Of these reports, 4 observed no significant signs of coral bleaching while 7 indicated observations of paling or partial bleaching across 1-10% or 11-30% of coral cover. One report saw paling on 31-50% of the reef.

Bleaching observations were made for a range of species, including Encrusting/ Mound/Boulder corals (*Siderastrea siderea*, *Stephanocoenia intersepta*, *Solenastrea bournoni*, *Dichocoenia stokesi*), Brain corals (*Psuedodiploria strigosa*), and Branching/Pillar corals (*Oculina diffusa*, *Porites porites*). Several reports also noted affected Fire Coral and *Palythoa spp.* These affected species were observed at depths ranging from 16 - 50 feet, and water temperatures ranged from 82 to 88°F.

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 by the first week of August, and an Alert Level 2 by early September. 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.

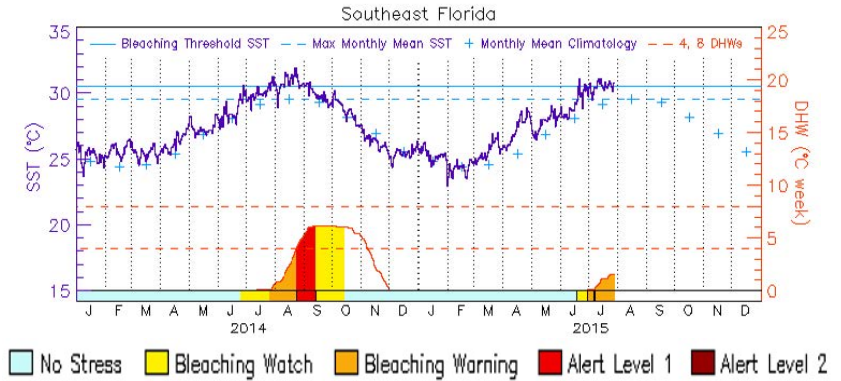


Figure 4. NOAA CRW Virtual Station Data; January 1, 2014 – July 28, 2015
http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

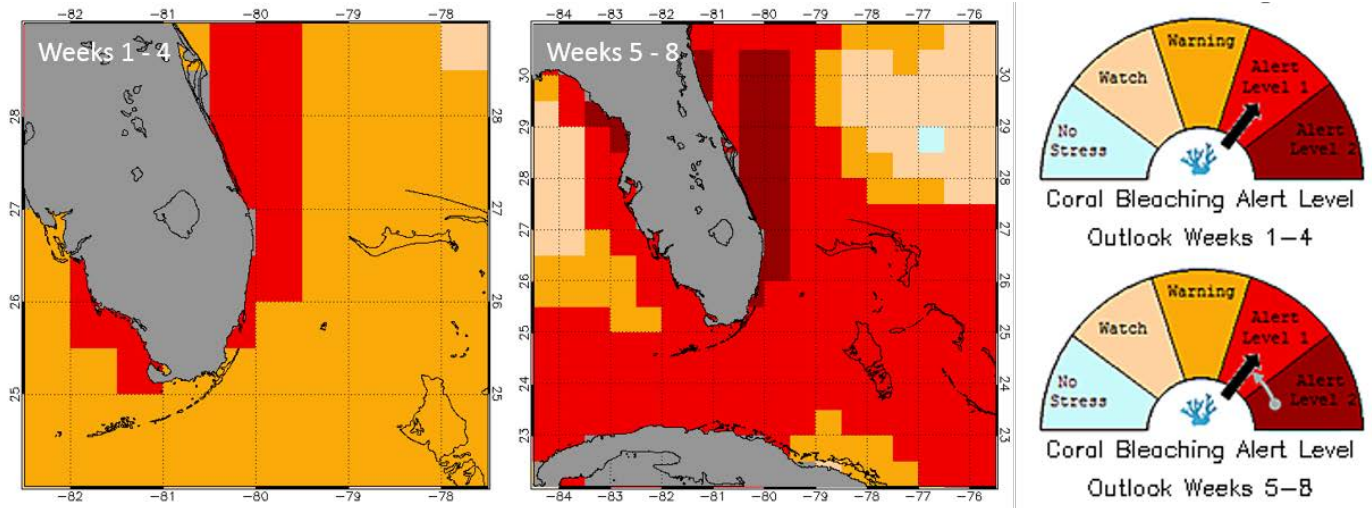


Figure 5. Southeast Florida Coral Bleaching Outlook for weeks 1-4 and 5-8; issued July 28, 2015.
http://coralreefwatch.noaa.gov/vs/gauges/southeast_florida.php

Karen Bohnsack
 Program Coordinator
 FDEP Coral Reef Conservation Program
 Phone: (305) 795-1204
 Email: karen.bohnsack@dep.state.fl.us
www.SEAFAN.net

Program Partners:

