



Florida Department of Environmental  
Protection  
Coral Reef Conservation Program  
**SEAFAN BleachWatch Program**



**Current Conditions Report #20140930**

**September 30, 2014**

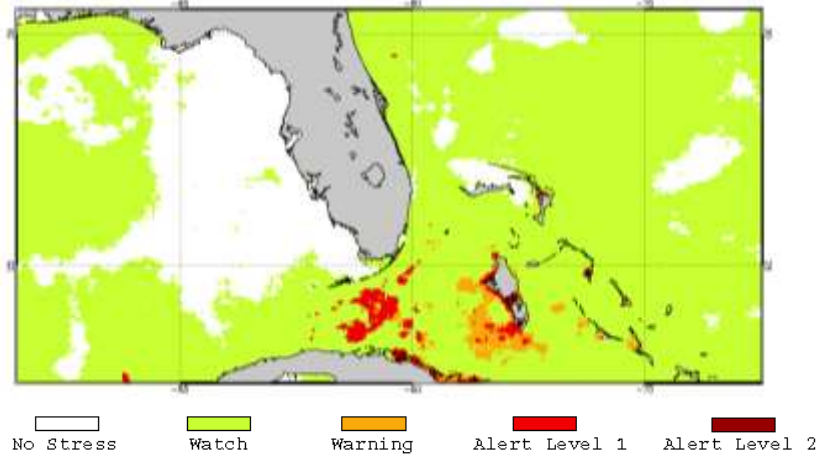
**Summary:** Based on climate predictions and field observations, the threat for mass coral bleaching in southeast Florida, between Miami-Dade and Martin counties remains **MODERATE**.

**Environmental Monitoring**

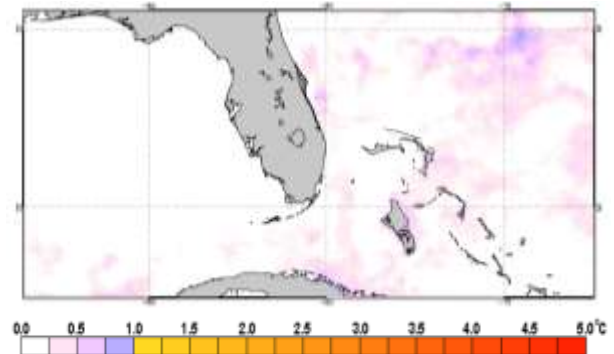
The latest NOAA Coral Reef Watch (CRW) experimental 5 kilometer (km) Daily Coral Bleaching Alert Area (Figure 1) indicates that southeast Florida is currently experiencing a moderate level of thermal stress, with a Bleaching Watch present throughout the majority of the region. While previous thermal stress may still be impacting corals, an improvement in conditions over the last few weeks may begin to allow for recovery.

- ❁ NOAA's Bleaching Hotspot Map compares current sea surface temperature (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, but remains below the 1°C Hotspot bleaching threshold throughout southeast Florida (Figure 2).
- ❁ Coral bleaching risk increases if the temperature stays elevated for an extended period of time. NOAA's experimental 5km Degree Heating Weeks (DHW) map shows the accumulation of temperature stress over the previous 12 weeks (3 months). The most recent DHW map (Figure 3) indicates that accumulated temperature stress still affects southeast Florida with some areas remaining at 3 – 6 degree C-weeks. In those areas where thermal stress has reached 4 degree C-weeks or above, significant coral bleaching may be likely.
- ❁ Near real-time data from CRW's Satellite Virtual Stations indicate that SST remains below the bleaching threshold across southeast Florida Reef sites, although it has increased slightly in Broward and Palm Beach over the last two weeks (Figure 4).

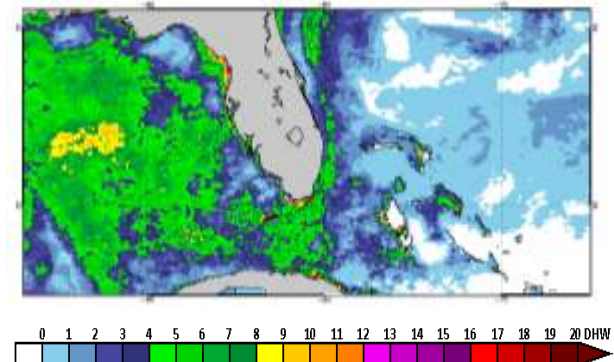
The Florida Department of Environmental Protection's Coral Reef Conservation Program staff will continue to monitor NOAA's Hotspot, DHW and Alert Area maps, as well as Virtual Station data for the remainder of the bleaching season.



**Figure 1.** NOAA CRW Experimental Daily 5 km Blended Geo-Polar Nighttime Blended Bleaching Alert Area; September 28, 2014  
<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.php>



**Figure 2.** NOAA CRW Experimental Daily 5km Blended Geo-Polar Nighttime Hotspot; September 28, 2014  
<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.php>



**Figure 3.** NOAA CRW Experimental Daily 5km Blended Geo-Polar Nighttime DHW; September 28, 2014  
<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.php>

## Observer Network

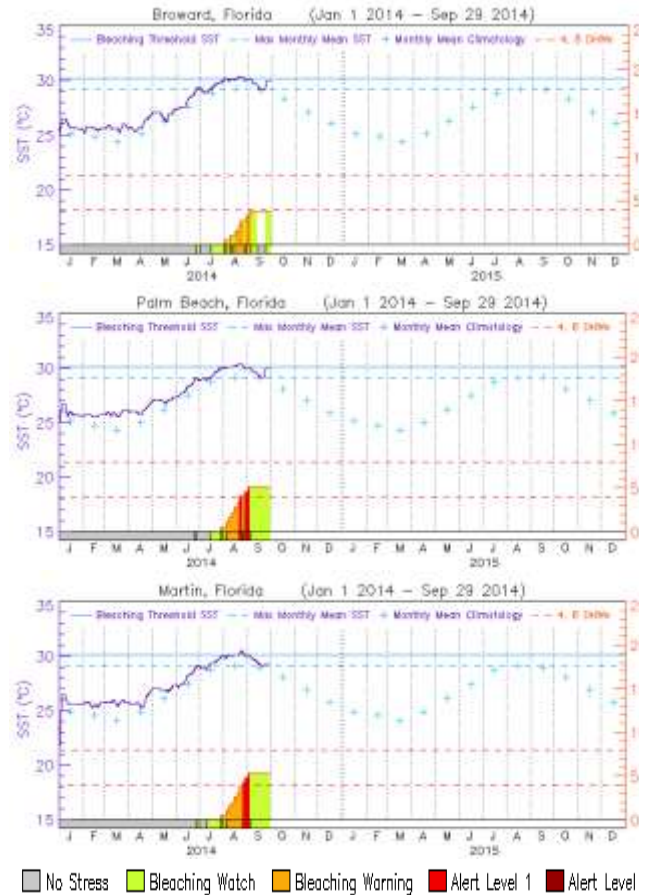
A total of 4 bleaching reports were received during the last two weeks of September, all in Miami-Dade County, including one from Biscayne National Park. All reports indicated observations of partial to full bleaching on 50 – 100% of corals. The overall depth range of corals exhibiting signs of thermal stress in Miami-Dade County was 18 – 21 feet, with the exception of Biscayne National Park where bleached coral was observed at depths between 15 and 67 feet and water temperature was reported to be 86°F.

Partial bleaching and bleaching observations were noted for a range of species, including Encrusting/Mound/Boulder corals, Brain corals, and Branching/Pillar corals. Additional observations included bleached *Palythoa spp.*, fire coral and gorgonians (Figure 5).

Although coral bleaching is currently being observed in Miami-Dade County, recent changes in environmental conditions may help to alleviate the region from substantial continued bleaching at this time. Additional field observations from southeast Florida’s reefs are needed to better assess the duration, extent, and severity of bleaching.

The BleachWatch Observer Network is encouraged to submit observations on coral condition after every visit to the reef for the remainder of the summer season. **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.*



**Figure 4.** NOAA CRW Virtual Station Data; January 1, 2014 – September 29, 2014. <http://coralreefwatch.noaa.gov/satellite/vs.php>



**Figure 5.** Bleached gorgonian in Miami Dade County on 9/19/2014. Photo: FDEP CRCP.

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

### Program Partners:

