



Mote Marine Laboratory / Florida Keys National Marine Sanctuary  
**Coral Bleaching Early Warning Network**  
**Current Conditions Report #20080926**



Updated September 26, 2008

**Summary:** Based on climate predictions, current conditions, and field observations, the threat for mass coral bleaching within the FKNMS remains **LOW**.

**Weather and Sea Temperatures**

**NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook  
 September - December, 2008**

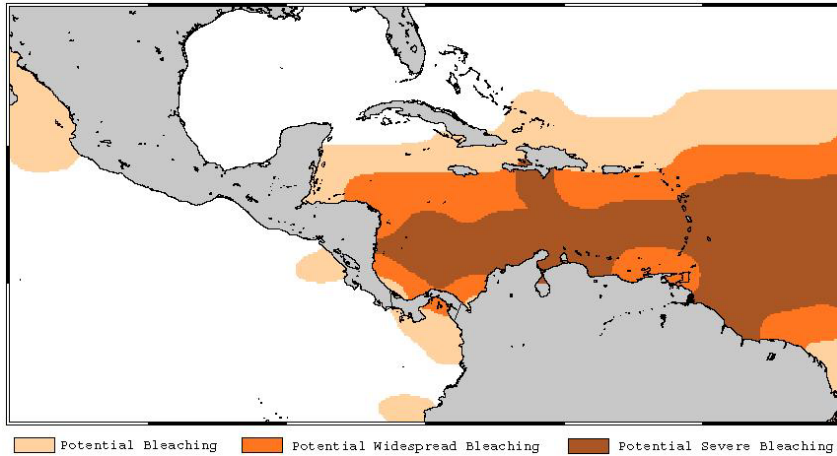


Figure 1. NOAA's Coral Bleaching Thermal Stress Outlook for Sept. – Dec. 2008.

According to NOAA's Coral Reef Watch, there is a potential for bleaching across the Caribbean basin in 2008, but it is not likely to be severe. The potential for widespread bleaching has increased for the Windward Islands and perhaps along the coasts of Nicaragua and Colombia (Figure 1).

NOAA's Coral Reef Watch current remote sensing analysis reveals that the Florida Keys region thermal stress is beginning to decrease. NOAA's recent Coral Bleaching HotSpot Map, which provides current SST's compared to the historically expected SST's for the region, indicates no elevated temperature anomalies in the vicinity of the Florida Keys National Marine Sanctuary (Figure 2). Similarly, NOAA's latest Degree Heating Weeks (DHW) map, which illustrates the accumulation of elevated temperature in an area based on the previous 12 weeks, indicates minimal cumulative temperature stress in the Florida Keys region (Figure 3). Finally, sea temperature readings at NOAA's Integrated Coral Observing Network (ICON) monitoring stations confirm that sea temperatures throughout the Florida Keys have been at or below 30°C for about 2 weeks (Figure 4). As a result, NOAA's Coral Reef Watch program has decreased their coral bleaching alert to "No Stress", indicating that observations of coral bleaching are not likely in the Florida Keys region.

Mote Marine Laboratory will continue to monitor the NOAA HotSpot maps, DHW maps, and ICON sea temperature data from NOAA monitoring stations on a weekly basis for the remainder of the bleaching season.

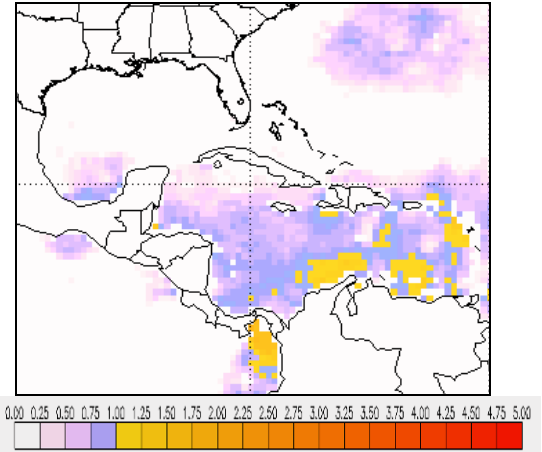


Figure 2. NOAA's Coral Bleaching HotSpot Map for September 25, 2008.  
[www.osdps.noaa.gov/PSB/EPS/SST/climohot.html](http://www.osdps.noaa.gov/PSB/EPS/SST/climohot.html)

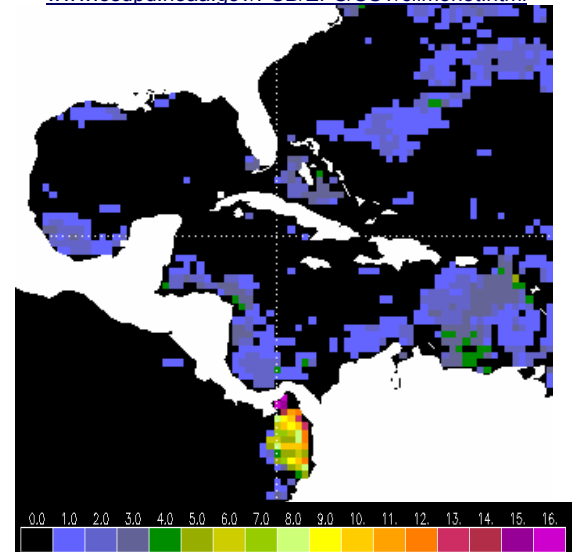


Figure 3. NOAA's Degree Heating Weeks Map for September 25, 2008.  
[www.osdps.noaa.gov/PSB/EPS/SST/dhw\\_retro.html](http://www.osdps.noaa.gov/PSB/EPS/SST/dhw_retro.html)

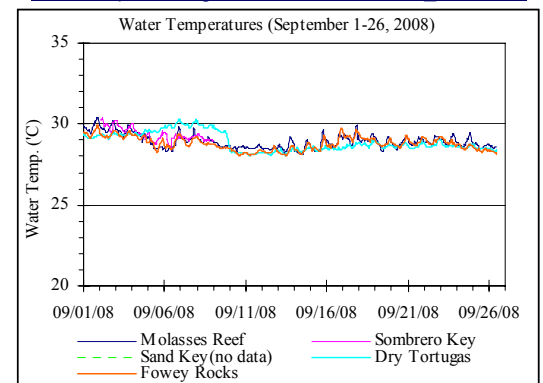


Figure 4. Summary of *in-situ* sea temperature data from NOAA/ICON monitoring stations (Sept. 1-26, 2008).



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**Conditions of Corals**



Photo: MML

Figure 5. *Colpophyllia natans* with partial bleaching south of Boca Chica on September 18, 2008.

A total of 48 BleachWatch Observer reports were received during the last four weeks, with 11 reports indicating isolated colonies exhibiting signs of paling or partial bleaching (Figure 5). The remaining reports indicated no signs of coral bleaching (Figure 6). There were no reports of fully bleached colonies observed throughout the Florida Keys or Key Biscayne (Figure 7).



Photo: Carmen Powers

Figure 6. Healthy *Colpophyllia natans* at the Elbow Reef off Marathon, September 16, 2008.

These isolated paling/bleaching observations consisted of Mound and Boulder corals (*Siderastrea spp.*), Brain corals, Branching Corals (*Porites porites* and *Oculina spp.*) as well as additional observations of paling/bleached Fire Coral.

Due to Hurricane Ike, there were fewer reports submitted during this period. Please continue to report coral bleaching or no bleaching as weather permits.

**BleachWatch Reports for September 1-26, 2008**

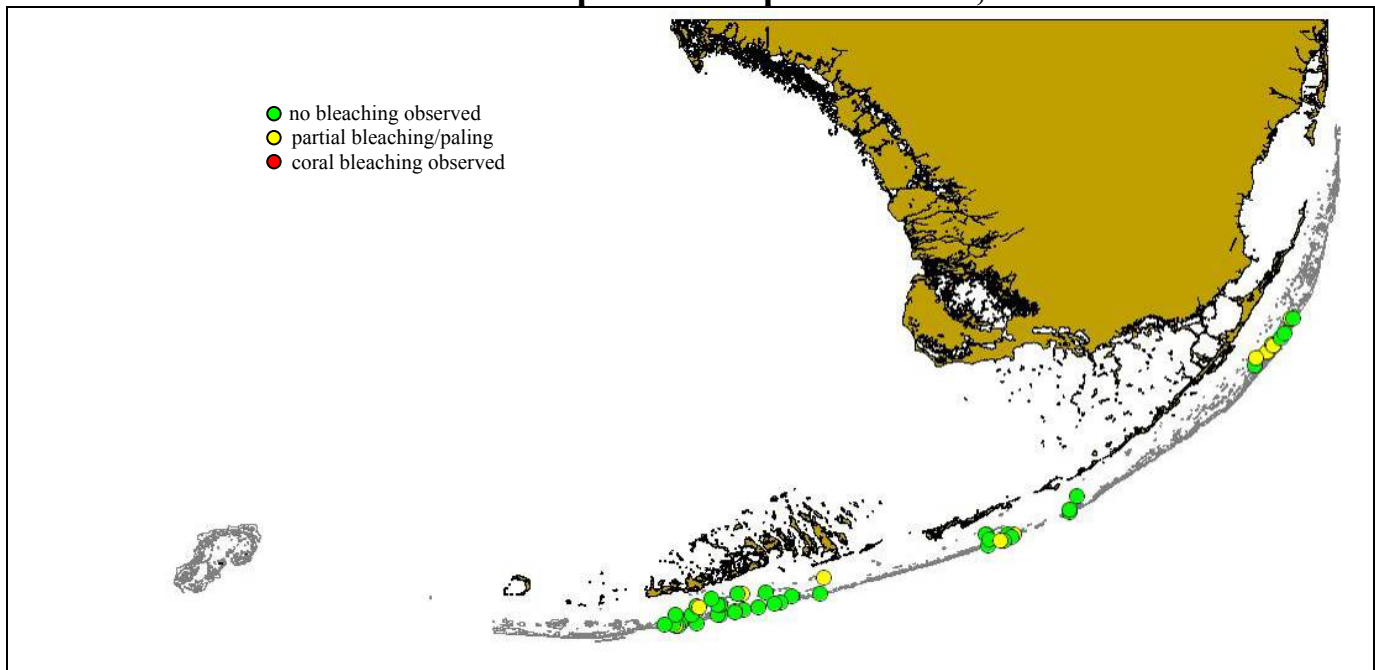


Figure 7. Overview of BleachWatch observer reports submitted from September 26, 2008

For more information about the BleachWatch program, or to submit a bleaching observation, contact:

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<http://www.mote.org/Keys/research/bleaching.phtml>