



# Coral Bleaching Early Warning Network

## Current Conditions Report #20081030



Updated October 30, 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 October, 2008 -January, 2009

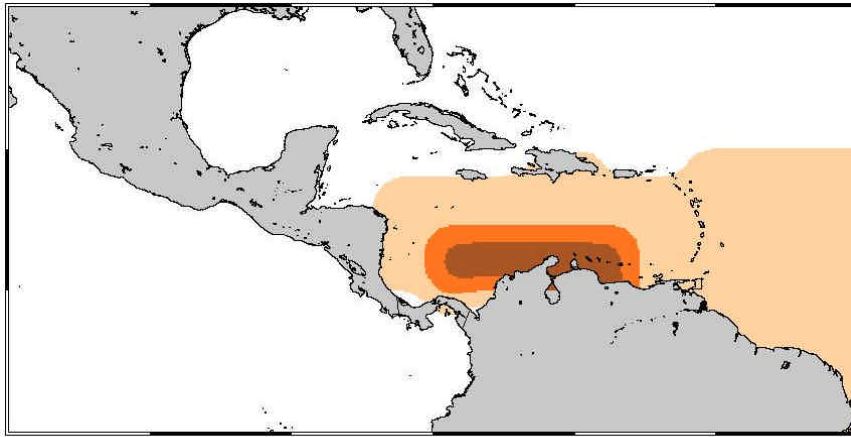


Figure 1. NOAA's Coral Bleaching Thermal Stress Outlook for Oct.08' -Jan. 09'.  
Legend: Potential Bleaching (light orange), Potential Widespread Bleaching (orange), Potential Severe Bleaching (dark brown)

According to the latest NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook, "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." The forecast for the Florida Keys region shows that there is no significant potential for coral bleaching anticipated for the remainder of 2008. (Figure 1).

NOAA's Coral Reef Watch current remote sensing analysis also reveals that there is little or no thermal stress currently affecting the Florida Keys region. NOAA's recent Coral Bleaching HotSpot Map, which provides current sea surface temperatures (SST) 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). Furthermore, sea temperature readings at NOAA's Integrated Coral Observing Network (ICON) monitoring stations confirm that sea temperatures throughout the Florida Keys have been well below 30°C over the past month (Figure 4). Finally, NOAA's Coral Reef Watch program continues to maintain a coral bleaching alert status of "No Stress", indicating that significant coral bleaching is not likely to occur in the Florida Keys for the remainder of 2008. As a result, this will be the final current conditions report for 2008.

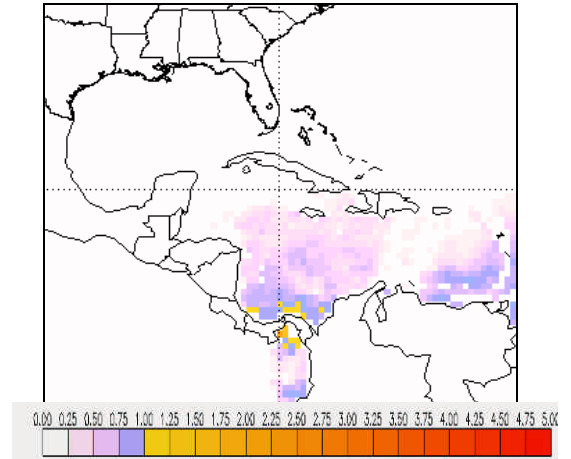


Figure 2. NOAA's Coral Bleaching HotSpot Map for October 30, 2008.

[www.osdpcd.noaa.gov/PSB/EPS/SST/climohot.html](http://www.osdpcd.noaa.gov/PSB/EPS/SST/climohot.html)

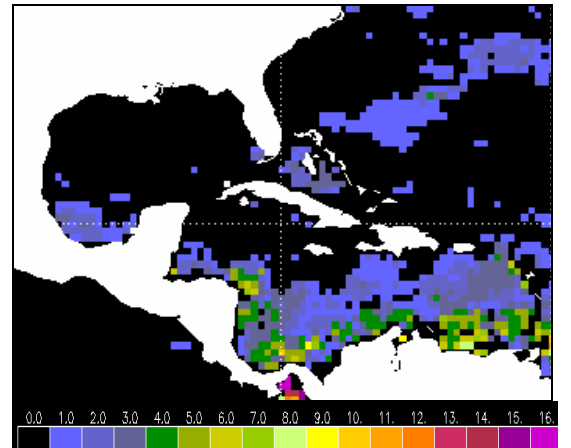


Figure 3. NOAA's Degree Heating Weeks Map for October 30, 2008.

[www.osdpcd.noaa.gov/PSB/EPS/SST/dhw\\_retro.html](http://www.osdpcd.noaa.gov/PSB/EPS/SST/dhw_retro.html)

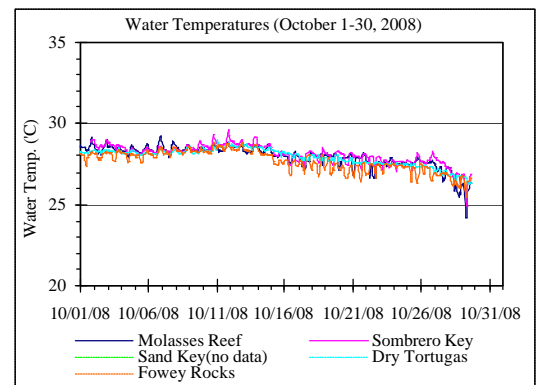


Figure 4. Summary of *in-situ* sea temperature data from NOAA/ICON monitoring stations (Oct 1-30, 2008).



Mote Marine Laboratory / Florida Keys National Marine Sanctuary  
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**Conditions of Corals**



Figure 6. Photo of Order of the Arrow BleachWatch Observers 2008.  
 Photo: www.oa-bsa.org

During October there have been only 21 BleachWatch Observer reports received from throughout the Florida Keys (Figure 5) largely due to inclement weather. Overall, only 1 report indicated isolated paling colonies, including mostly *Siderastrea sp.*, and *Diploria sp.*, still being noted. All other reports indicated that no signs of coral bleaching were observed during this current report period.

The 2008 BleachWatch season has come to an end with a total of 270 reports submitted by BleachWatch observers (Figure 6). Observer reports verified that no significant signs of coral bleaching were observed in the Florida Keys region in 2008, with only limited

reports noting mild paling or partial bleaching (Figure 7). Based on current environmental conditions and the limited number of isolated paling or partially bleached corals noted by BleachWatch observers, significant coral bleaching in the Florida Keys National Marine Sanctuary and surrounding waters seems highly unlikely at this time. As a result, this will be the final current conditions report for 2008.

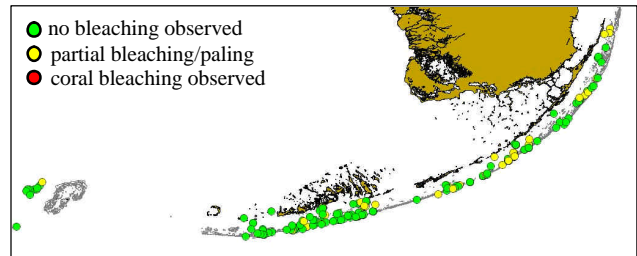


Figure 7. Summary map of all Florida Keys BleachWatch Observer reports submitted during the 2008 coral bleaching season.

**THANKS AGAIN TO ALL OF OUR BLEACHWATCH OBSERVERS!**

**BleachWatch Reports for October 1-30, 2008**

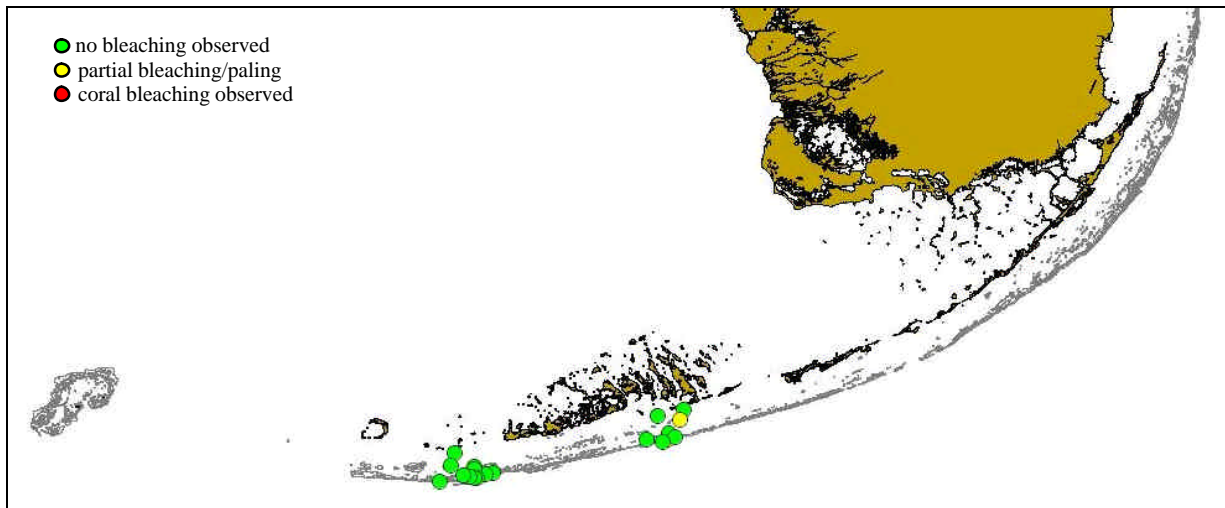


Figure 5. Overview of BleachWatch observer reports submitted from October 1-30, 2008

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

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