



Mote Marine Laboratory / Florida Keys National Marine Sanctuary  
**Coral Bleaching Early Warning Network**  
**Current Conditions Report #20080801**



Updated August 1, 2008

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

**Weather and Sea Temperatures**

**NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook  
 July – October 2008**

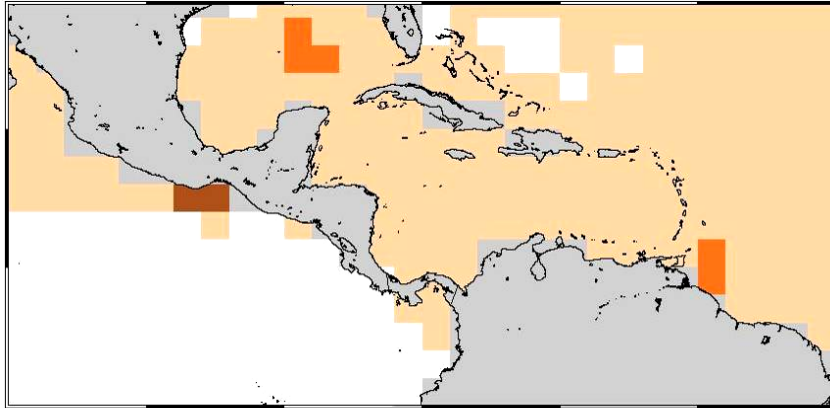


Figure 1. NOAA's Coral Bleaching Thermal Stress Outlook for July-October, 2008.

According to NOAA's Coral Reef Watch, which recently released the Coral Bleaching Thermal Stress Outlook for July thru October, 2008, only "Potential Bleaching" is forecasted for throughout the Florida Keys and most of the Caribbean (Figure 1).

NOAA's Coral Reef Watch current remote sensing analysis reveals that the Florida Keys region is not currently experiencing building thermal stress. NOAA's recent Coral Bleaching HotSpot Map, which provides current SST's compared to the historically expected SST's for the region, shows no elevated temperature anomalies for most of the Florida Keys National Marine Sanctuary and surrounding waters (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 no significant cumulative temperature stress in the Florida Keys region (Figure3). 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 just below 30°C for about 2 weeks (Figure 4). As a result, NOAA's Coral Reef Watch program continues to maintain a "Bleaching Watch", indicating that while some coral bleaching is likely to be observed significant mass coral bleaching is not likely to occur 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.

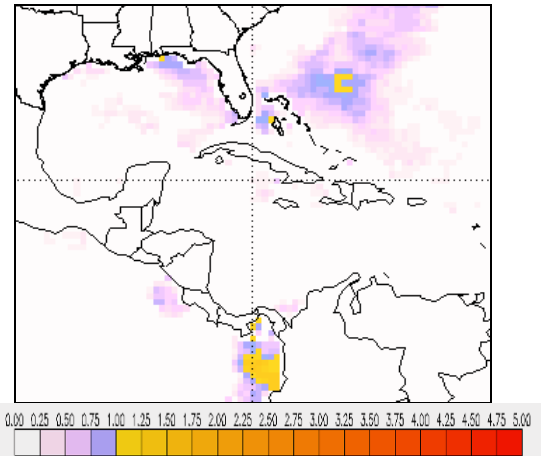


Figure 2. NOAA's Coral Bleaching HotSpot Map for July 31, 2008.  
[www.osdpc.noaa.gov/PSB/EPS/SST/climohot.html](http://www.osdpc.noaa.gov/PSB/EPS/SST/climohot.html)

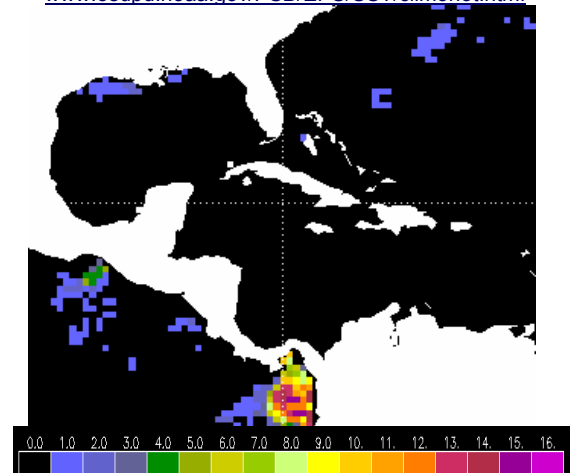


Figure 3. NOAA's Degree Heating Weeks Map for July 31, 2008.  
[www.osdpc.noaa.gov/PSB/EPS/SST/dhw\\_retro.html](http://www.osdpc.noaa.gov/PSB/EPS/SST/dhw_retro.html)

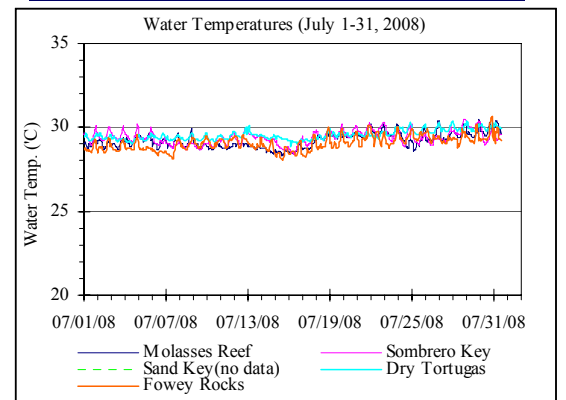


Figure 4. Summary of *in-situ* sea temperature data from NOAA/ICON monitoring stations (July1-31, 2008).



# Coral Bleaching Early Warning Network

## Current Conditions Report #20080801



### Conditions of Corals

A total of 76 BleachWatch Observer reports were received during the month of July, with 55 reports indicating no signs of coral bleaching (Figure 5). The remaining 21 reports indicated isolated colonies exhibiting signs of mild thermal stress or paling (Figure 6). These



Figure 5. Healthy *Dendrogyra cylindrus* on July 16, 2008 at Looe Key Reef.

isolated paling observations consisted of Mound and Boulder corals (mostly *Siderastrea spp.*), Brain corals, Branching Corals (*Porites porites* and *Oculina spp.*) as well as additional observations of paling *Palythoa spp.*, Fire Coral and Gorgonians. There were no reports of fully bleached colonies observed throughout the Florida Keys and Key Biscayne (Figure 7).

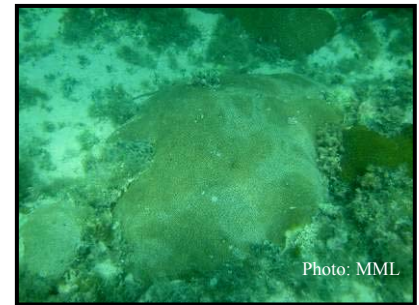


Figure 6. *Siderastrea siderea* paling on July 30, 2008 at Jaap Reef.

Although environmental conditions and observations indicate that no significant coral bleaching is currently occurring throughout the Florida Keys, continued field observations are needed.

### BleachWatch Reports for July 1-31, 2008

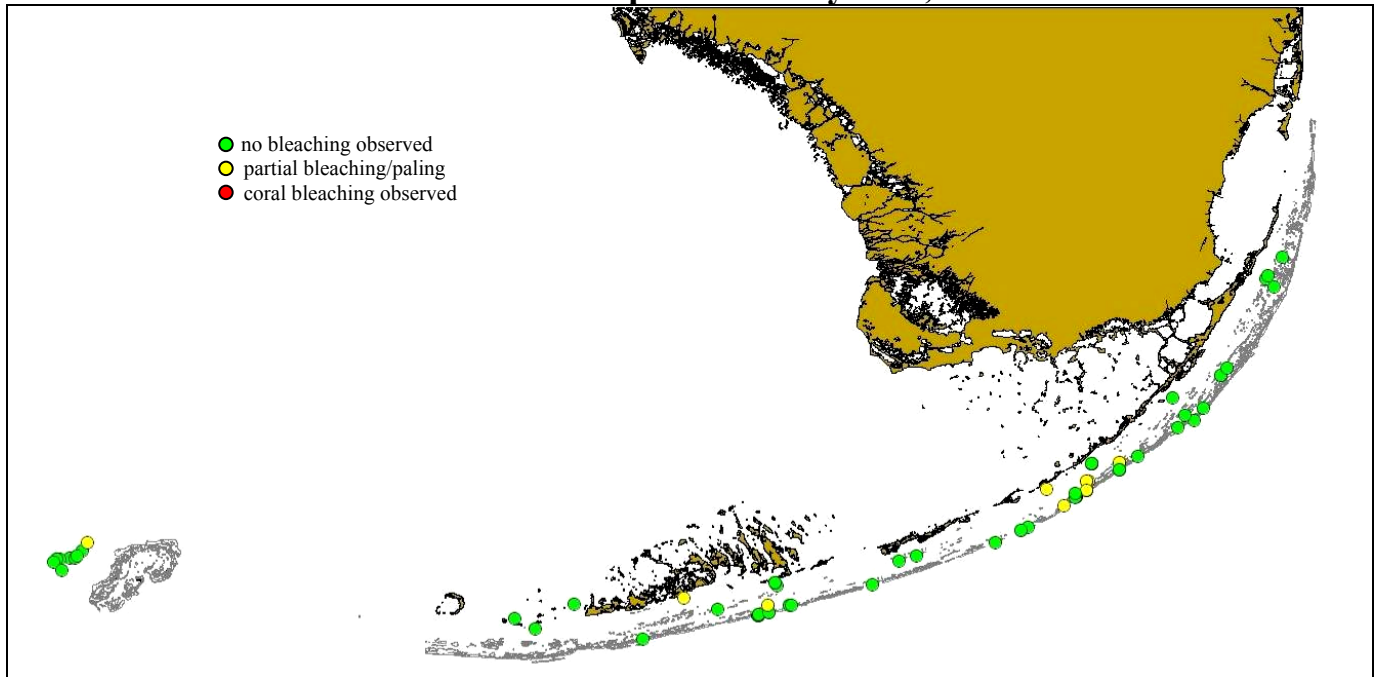


Figure 7. Overview of BleachWatch observer reports submitted from July 1- 31, 2008

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>