



Updated August 28, 2006

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

Weather and Sea Temperatures

Current remote sensing analysis by NOAA's Coral Reef Watch program shows temperatures continuing to increase in the Florida Keys region. NOAA's recent Coral Bleaching HotSpot Map (Figure 1), which provides current SST's compared to the historically expected SST's for the region, indicates elevated temperature anomalies for the Florida Keys National Marine Sanctuary and surrounding waters. 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 temperature stress building in the Florida Keys region (Figure 2). Measurements at NOAA's *in-situ* monitoring stations show sea temperatures for the Upper and Middle Keys exceeding 30°C for over a week (Figure 3), and winds remaining fairly light during the same period (Figure 4), resulting in favorable conditions for coral bleaching.

Mote Marine Laboratory will continue to monitor the NOAA HotSpot maps, DHW maps, and *in-situ* sea temperature data from NOAA monitoring stations on a weekly basis as long as the potential for bleaching remains elevated.

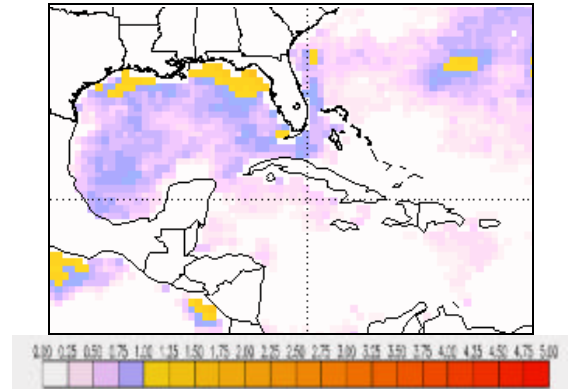


Figure 1. NOAA's Coral Bleaching HotSpot Map for Aug 25, 2006.
www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html

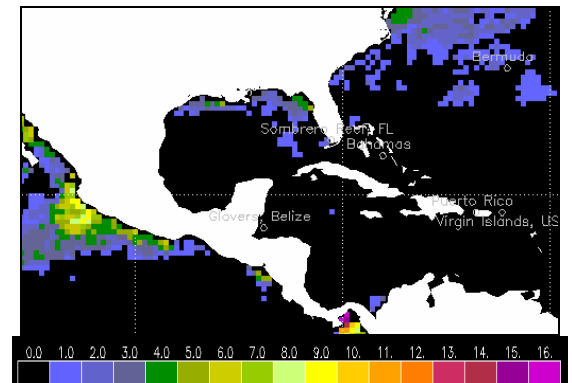


Figure 2. NOAA's Degree Heating Weeks Map for Aug 25, 2006.
www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html

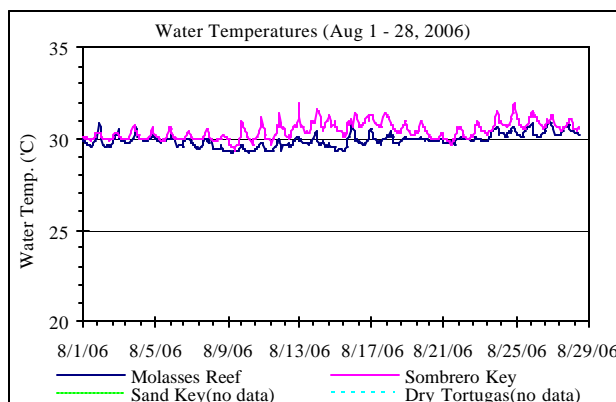


Figure 3. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations (Aug 1 - 28, 2006).

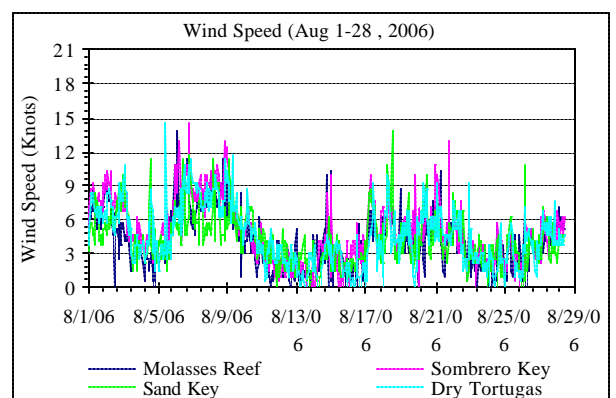


Figure 4. Summary of wind speed data from NOAA/FIO monitoring stations (Aug 1 - 28, 2006).



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20060828



Conditions of Corals

A total of 25 BleachWatch Observer reports were received during the last two weeks, with 14 reports indicating isolated colonies exhibiting signs of paling or partial bleaching (Figure 5), mostly distributed throughout the Lower and Middle Keys (Figure 6). These isolated paling/bleaching observations consisted of *Siderastrea sp.*, *Diploria sp.*, *Oculina sp.*, and *Montastraea sp.* as well as additional observations of paling/bleached *Palythoa sp.*



Figure 5. Partially bleached colony of *Siderastrea siderea* (Aug. 24, 2006)

These isolated observations of paling and partial bleaching do not necessarily indicate the onset of a mass bleaching event; however, continued field observations are needed as more widespread bleaching could develop if environmental conditions continue to be favorable.

**Current conditions remain favorable for coral bleaching.
Please report after every reef visit, even if no bleaching is observed.**

BleachWatch Reports for August 14 – 25, 2006

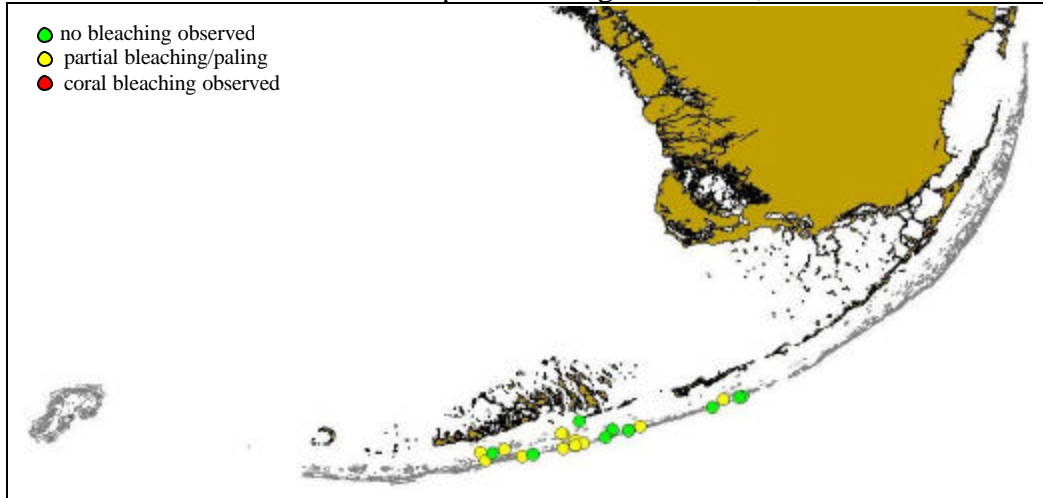


Figure 6. Overview of BleachWatch observer reports submitted from Aug 14-25, 2006.

Thanks to all of our BleachWatch Observers for your reports!

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>