



Updated July 16, 2007

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 are near or exceeding 30°C for over a week (Figure 3), and winds remaining fairly light during the last 2 weeks (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.

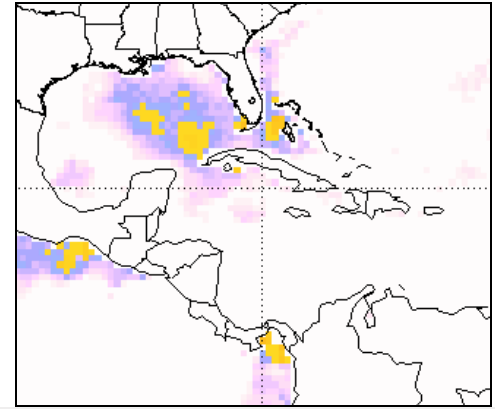


Figure 1. NOAA's Coral Bleaching HotSpot Map for July 16, 2007.

www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html

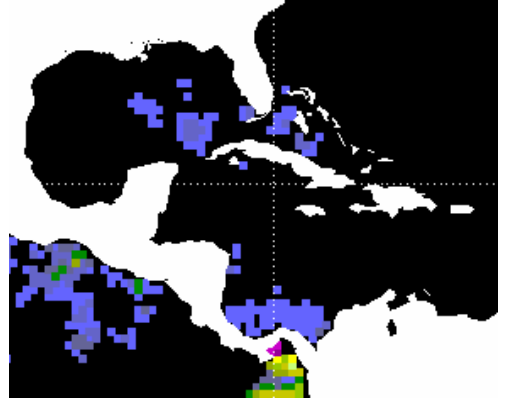


Figure 2. NOAA's Degree Heating Weeks Map for July 16, 2007.

www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html

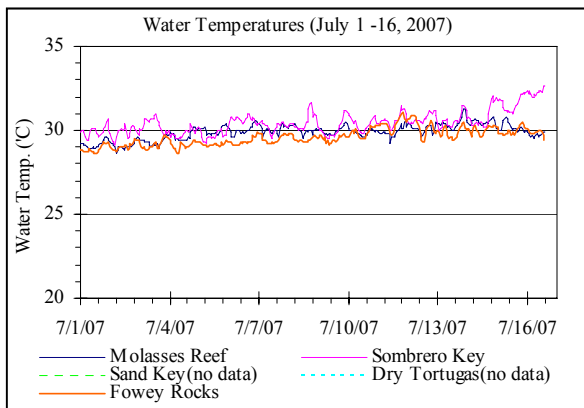


Figure 3. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations (July 1-16, 2007).

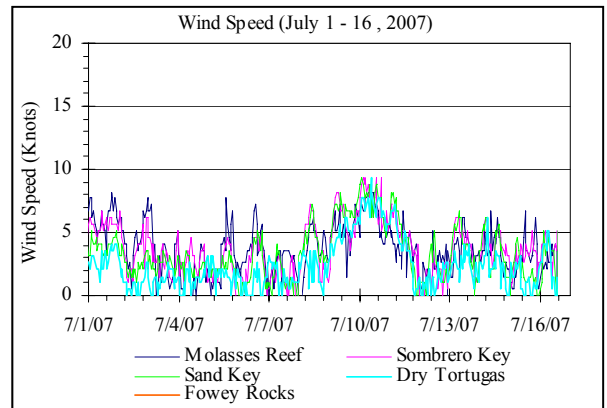


Figure 4. Summary of wind speed data from NOAA/FIO monitoring stations (July 1-16, 2007).



Coral Bleaching Early Warning Network

Current Conditions Report #20070716



Conditions of Corals

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



Photo: Kyle McAllister

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.

Figure 6. *Palythoa* spp. with paling on July 6, 2007 at Looe Key Reef.

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

BleachWatch Reports for July 1-16, 2007

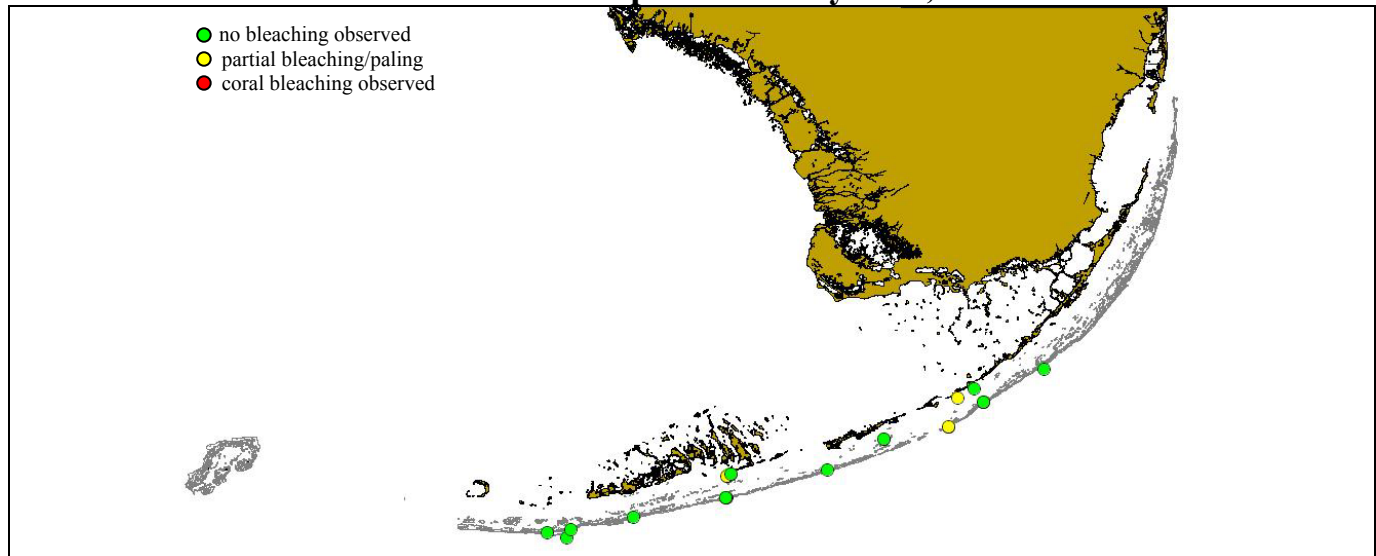


Figure 5. Overview of BleachWatch observer reports submitted from July 1-16, 2007.

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>