



# Coral Bleaching Early Warning Network

## Current Conditions Report #20070629



Updated June 29, 2007

**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

Weather and sea surface temperature (SST) predictions for July, 2007 by NOAA's Climate Prediction Center indicate that while SST's for most of the Caribbean are anticipated to be above average over the next month, it is likely that SST's in the Florida Keys will continue to remain near or just slightly above average for this time of year over the next few weeks (Figure 1).

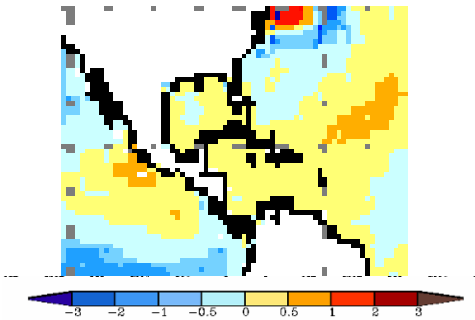


Figure 1. NOAA's Climate Prediction Center's sea surface temperature forecast for July, 2007  
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

Current remote sensing analysis by NOAA's Coral Reef Watch program shows that conditions in the Florida Keys do not indicate signs of building thermal stress. NOAA's recent Coral Bleaching HotSpot Map (Figure 2), which shows current SST's compared to the historically expected SST's for the region, indicates no current elevated temperature anomalies for the Florida Keys. Similarly, NOAA's latest Degree Heating Weeks (DHW) map (Figure 3), which shows the accumulation of elevated temperature in an area based on the previous 12 weeks, indicates the lack of building temperature stress in the Florida Keys region. Finally, sea temperature readings at NOAA's *in-situ* monitoring stations show temperatures in the Upper and Middle Florida Keys fluctuating between 26°-31°C over the past four weeks, but did not indicate any extended periods where temperatures remained significantly elevated (Figure 4). *In-situ* sea temperature data is still not available for the Dry Tortugas and Sand Key region as a result of hurricane damage in 2005. 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 for the remainder of the bleaching season.

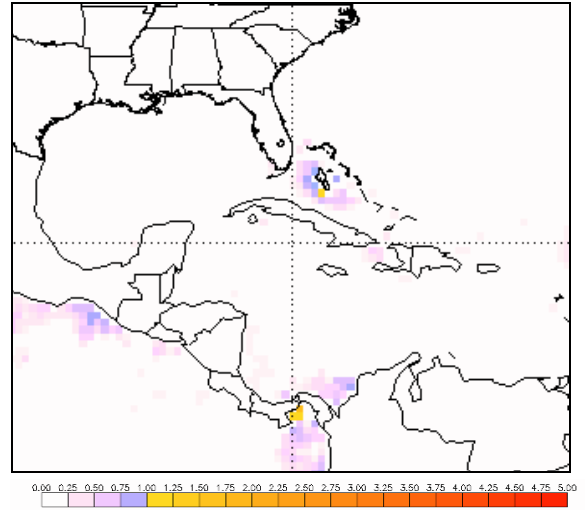


Figure 2. NOAA's Coral Bleaching HotSpot Map for June 28, 2007.  
[www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html](http://www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html)

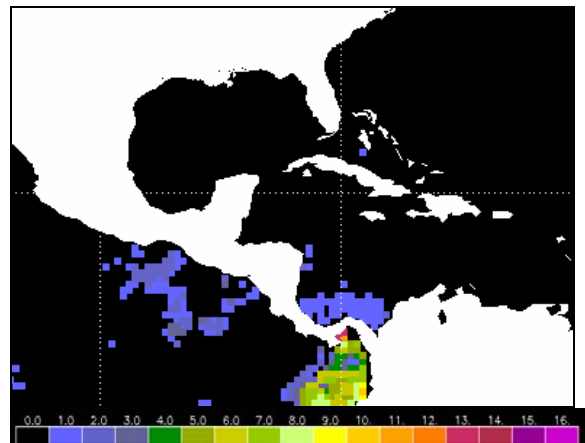


Figure 3. NOAA's Degree Heating Weeks Map for June 28, 2007.  
[www.osdpd.noaa.gov/PSB/EPS/SST/dhw\\_retro.html](http://www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html)

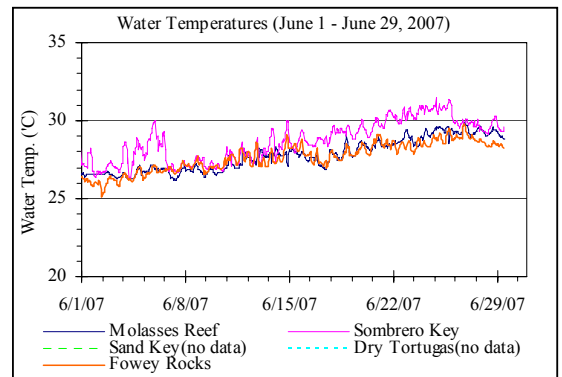


Figure 4. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations (June 1 - June 29, 2007).



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### Conditions of Corals

A total of 46 reports were received during the month of June 2007 distributed throughout the Florida Keys National Marine Sanctuary (Figure 5). While 9 of the reports indicated observations of isolated paling or upper surface bleaching on individual coral colonies (Figure 5), these observations were minimal, 1-10% overall severity, and limited to the brain or encrusting/mound/boulder (Figure 6) categories. In addition, there were 17 reports of *Palythoa sp.* (Figure 7) and 3 reports of Fire Coral observed to be paling or bleached.

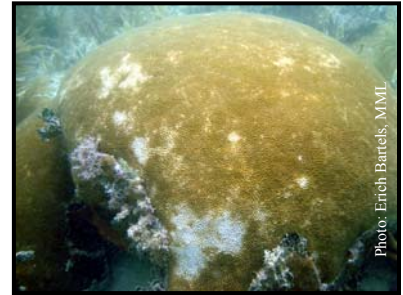


Figure 6. Paling *Siderastrea siderea* on 6/25/07 inshore near Newfound Harbor.

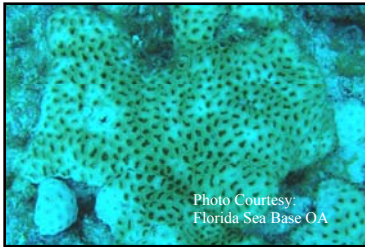
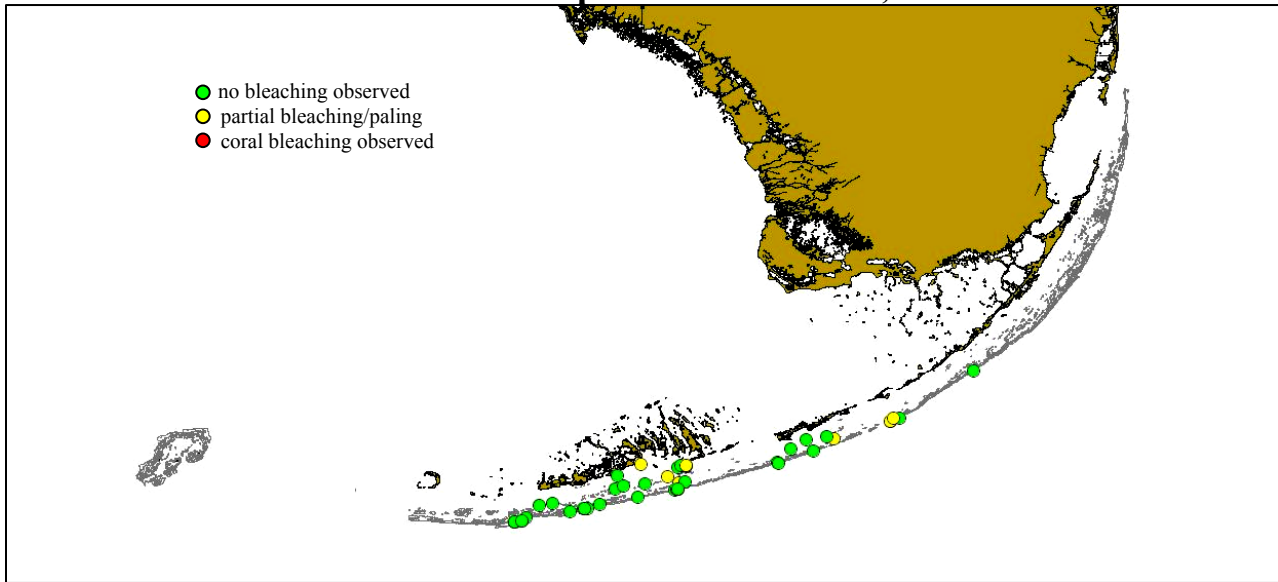


Figure 7. Paling and partially bleached *Palythoa sp.* 6/11/07 at Tennessee Reef.

As conditions become increasingly favorable for coral bleaching, all BleachWatch observers are encouraged to submit an observation after every reef visit, making sure to report regularly, even if no bleaching is observed.

### BleachWatch Reports for June 1-29, 2007



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

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

