



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20060630



Updated June 30, 2006

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, 2006 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

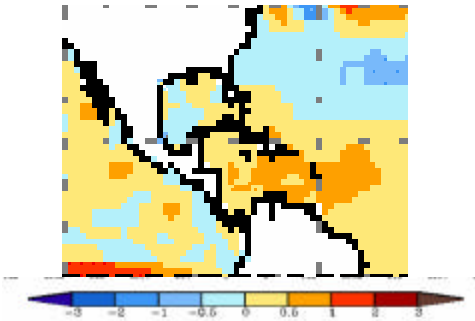


Figure 1. NOAA's Climate Prediction Center's sea surface temperature forecast for July, 2006
www.cpc.ncep.noaa.gov

remain near average for this time of year over the next few weeks (Figure 1).

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 27°-30°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.

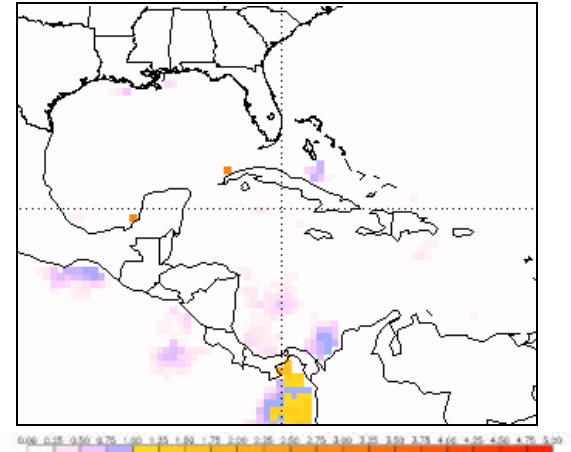


Figure 2. NOAA's Coral Bleaching HotSpot Map for June 27, 2006.
www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html

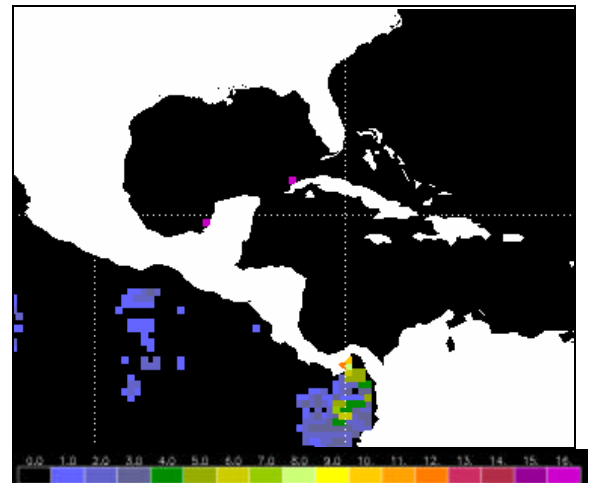


Figure 3. NOAA's Degree Heating Weeks Map for June 27, 2006.
www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html

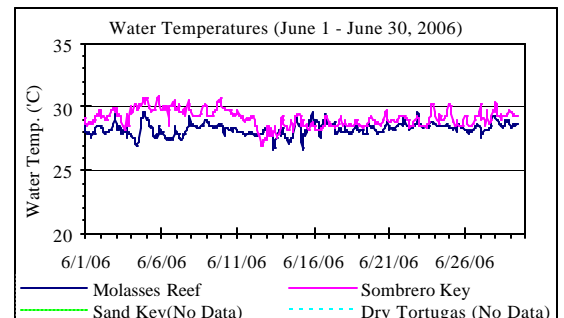


Figure 4. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations (June 1- June 29, 2006).



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Conditions of Corals

A total of 32 reports were received during the month of June 2006 distributed evenly throughout the Florida Keys National Marine Sanctuary (Figure 5). While 4 of the reports indicated observations of isolated paling coral colonies (Figure 5), these observations were minimal, 1-10% overall severity, and limited to the brain (species noted as *Colpophyllia natans*) or encrusting/mound/boulder categories. In addition, there were 9 reports of *Palythoa sp.* (Figure 6) observed to be paling or bleached.

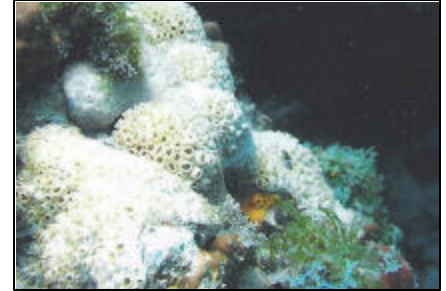


Figure 6. Paling *Palythoa sp.* at The Donut off of Marathon. Photo Carmen Powers

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.

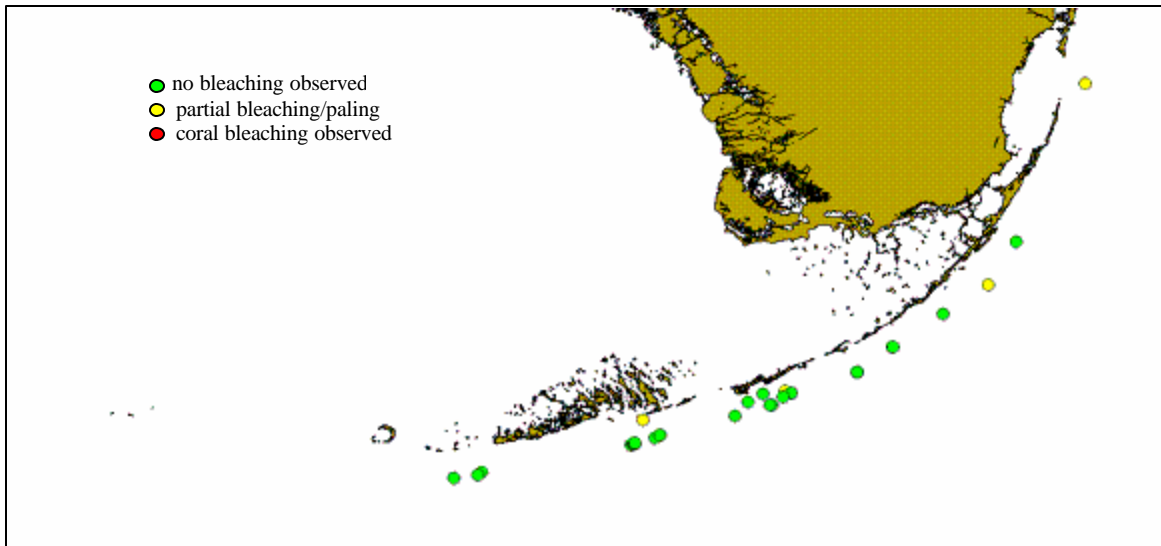


Figure 5. Overview of BleachWatch observer reports submitted from June 1-June 29, 2006

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>