



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20050628



Updated June 28, 2005

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

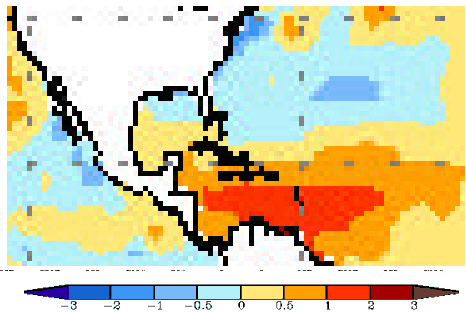


Figure 1. NOAA's Climate Prediction Center's sea surface temperature forecast for July, 2005
www.cpc.ncep.noaa.gov

for July, 2005 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 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, shows no current elevated temperature anomalies for the Florida Keys. Similarly, NOAA's latest Degree Heating Weeks (DHW) map, which indicates the accumulation of elevated temperature in an area based on the previous 12 weeks, shows the continued accumulating thermal stress in the southern and eastern Caribbean (Figure 3), as well as the lack of building temperature stress in the Florida Keys region. Finally, sea temperature readings at NOAA's *in-situ* monitoring stations show temperatures throughout the 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). 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. *In-situ* sea temperature data is still not available for the Dry Tortugas region as a result of hurricane damage in 2004, but NOAA plans to have a platform operational in the coming months.

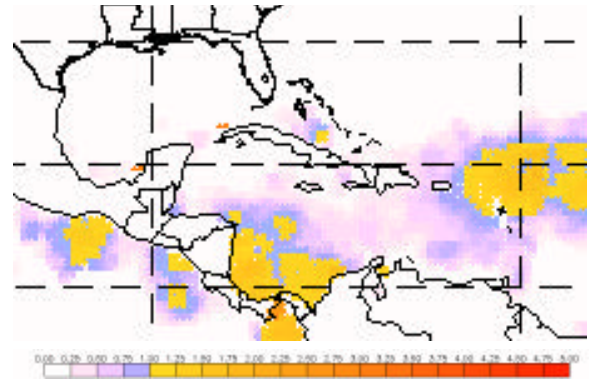


Figure 2. NOAA's Coral Bleaching HotSpot Map for June 28, 2005.
www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html

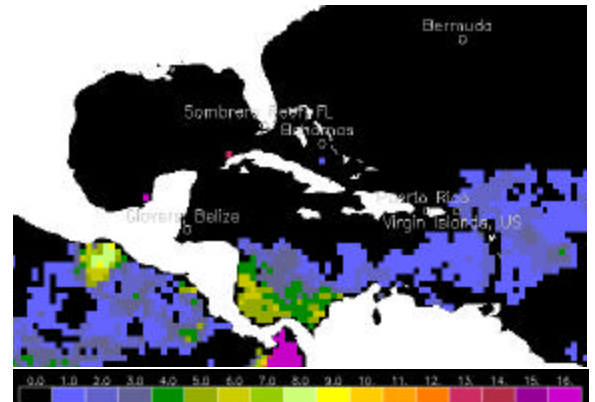


Figure 3. NOAA's Degree Heating Weeks Map for June 28, 2005.
www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html

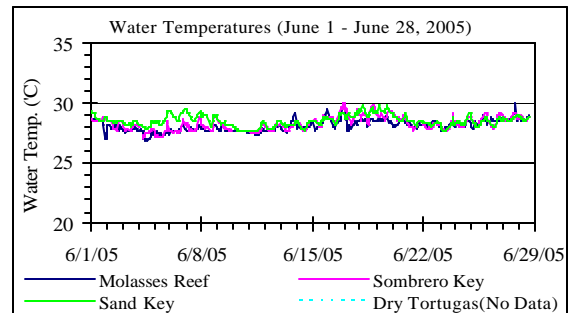


Figure 4. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations (June 1- June 28, 2005).



Conditions of Corals

Although outreach efforts continue to expand BleachWatch observer participation to monitor reefs throughout the entire Florida Keys, no reports were received in June from either the Upper or Middle Keys. Eight observations were logged for areas within the Lower Keys. Despite sea temperatures remaining below 30°C, half of those reports submitted in the Lower Keys indicated observations of minimal paling or partial bleaching, with total percent of corals affected less than 1% of the overall live coral cover at those sites.

All BleachWatch observers are encouraged to submit an observation after every reef visit, making sure to report regularly, even if no bleaching is observed.

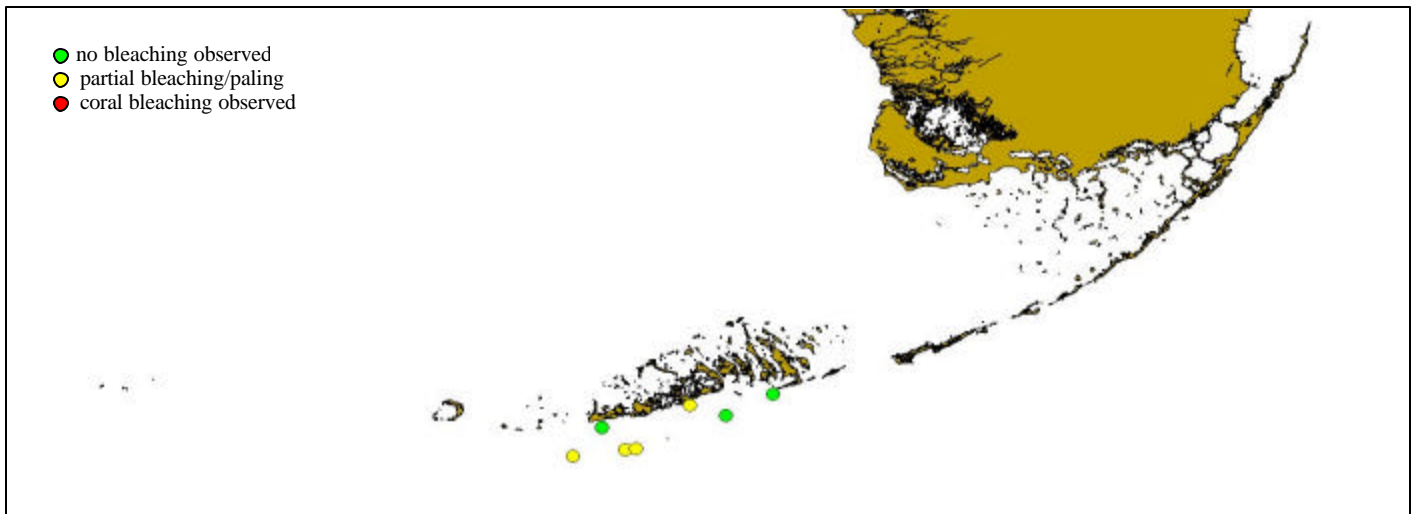


Figure 5. Overview of Bleachwatch observer reports submitted from June 1 - June 28, 2005

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

Cory Walter
Mote Marine Laboratory
24244 Overseas Highway
Summerland Key, FL 33042
(305) 745-2729 x301

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