



Updated July 26, 2005

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

Weather and sea surface temperature (SST) predictions for August, 2005 by NOAA's Climate Prediction Center indicate that SST's in the Florida Keys will likely remain near average for this time of year over the next few weeks (Figure 1).

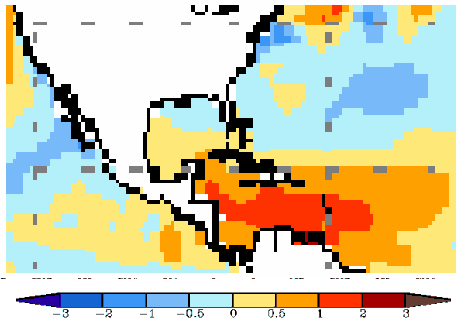


Figure 1. NOAA's Climate Prediction Center's sea surface temperature forecast for August, 2005 www.cpc.ncep.noaa.gov

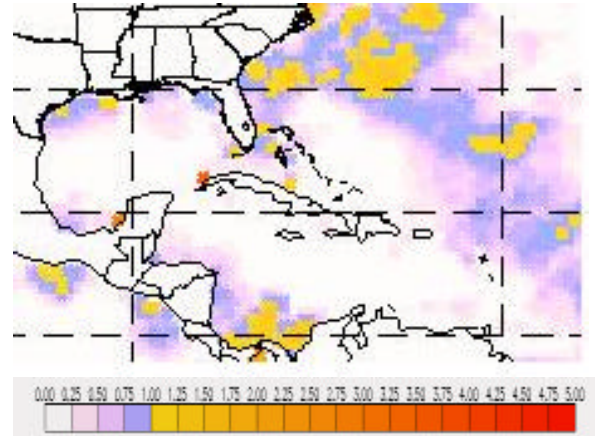


Figure 2. NOAA's Coral Bleaching HotSpot Map for July 26, 2005. www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html

Current remote sensing analysis by NOAA's Coral Reef Watch program shows that the Florida Keys are beginning to show 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 elevated temperature anomalies developing 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 indications of building temperature stress in the Florida Keys region (Figure 3). Finally, sea temperature readings at NOAA's *in-situ* monitoring stations show temperatures throughout the Florida Keys increasing again, after a significant cooling period as a result of Hurricane Dennis, and are now reaching or exceeding 30°C (Figure 4). With light winds, calm seas, and limited cloud cover forecasted for the remainder of the week, conditions are becoming increasingly favorable 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 for the remainder of the bleaching season.

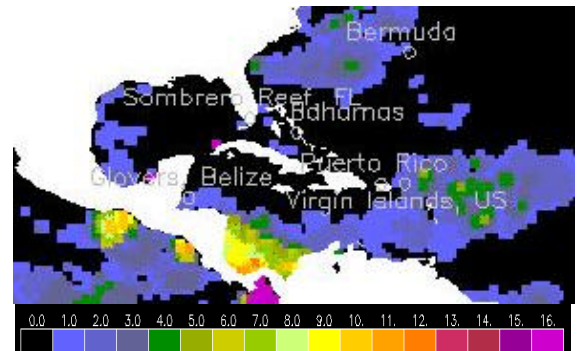


Figure 3. NOAA's Degree Heating Weeks Map for July 26, 2005. www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html

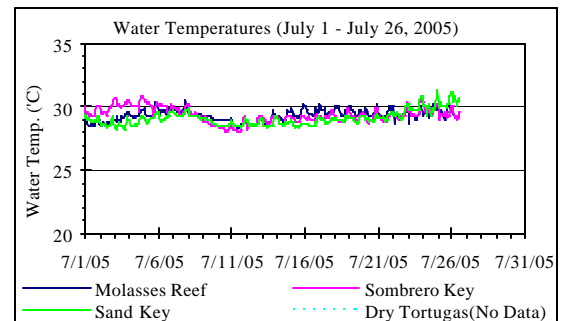


Figure 4. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations (July 1- July 26, 2005). **Note:** *In-situ* sea temperature data is still not available for the Dry Tortugas region as a result of hurricane damage in 2004, but NOAA plans to have a platform operational in the



Conditions of Corals

A total of 14 reports were received during the last report period, with 5 reports indicating signs of isolated observations of paling colonies or partial bleaching, mostly in the Middle and Upper Keys region (Figure 5). These paling observations were minimal, mostly limited to isolated colonies of *Montastrea sp.*, and do not necessarily indicate the onset of a mass bleaching event; however more widespread bleaching could develop if environmental conditions continue to be favorable. Also, there were 3 reports which included observations of coral damage as a result of Hurricane Dennis.

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.

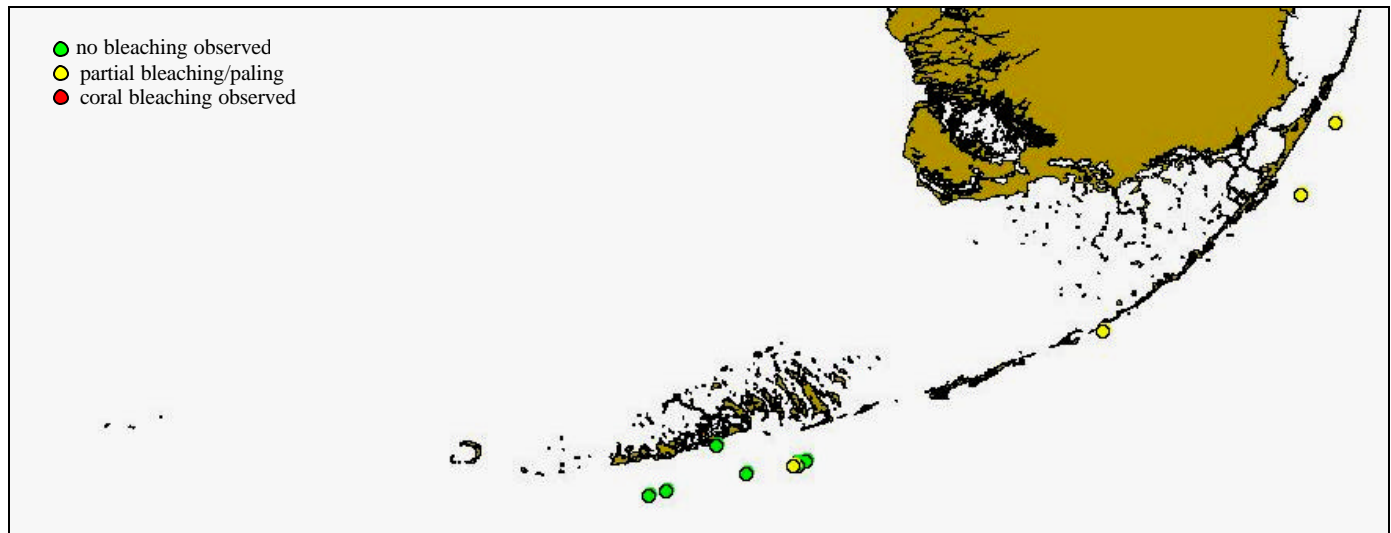


Figure 5. Overview of Bleachwatch observer reports submitted from July 1-July 26, 2005

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

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