



Updated June 1, 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

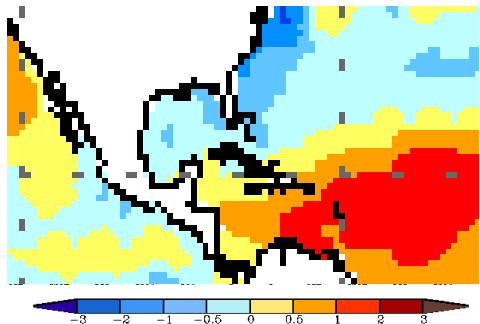


Figure 1. NOAA's Climate Prediction Center's sea surface temperature forecast for June 2005

for the 2005 season by NOAA's Climate Prediction Center indicate that while SST's for the southern Caribbean are anticipated to be above average over the next month, it is likely that SST's in the Florida Keys will

remain normal to below 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 despite rapidly increasing sea surface temperatures in the southern Caribbean and the lack of tradewinds over the past few weeks in that region, current conditions in the Florida Keys do not indicate similar 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 accumulating thermal stress in the southern Caribbean Sea (Figure 3), as well as the lack of accumulating temperature stress in the Florida Keys region. Finally, while sea temperature readings at NOAA's *in-situ* monitoring stations do show a rapid temperature increase throughout the Florida Keys (Figure 4), sea temperatures are still currently below 30°C (86°F). However, as a result of these rapidly increasing water temperatures, 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 by mid-summer.

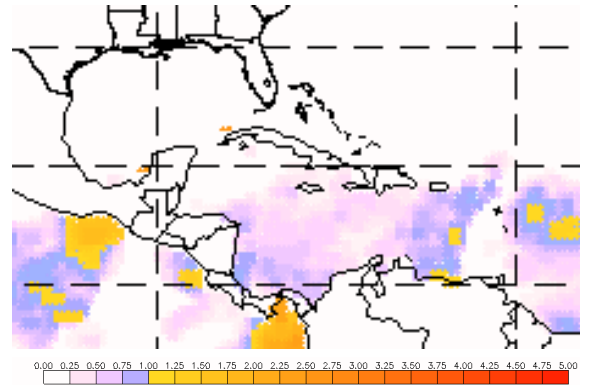


Figure 2. NOAA's Coral Bleaching HotSpot Map for May 31, 2005.

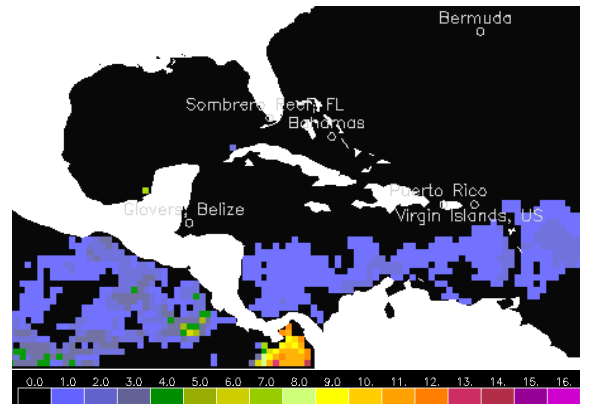


Figure 3. NOAA's Degree Heating Weeks Map for May 31, 2005.

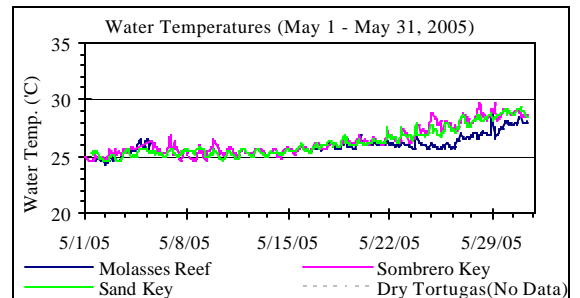


Figure 4. Summary of *in-situ* sea temperature data from NOAA/FIO monitoring stations from May 1- May 31, 2005.



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20050601



Conditions of Corals

To date Mote Marine Laboratory, in conjunction with Florida Keys National Marine Sanctuary staff, has held 4 training sessions, providing the tools and protocols for coral bleaching observations to dozens of volunteers. Additional training sessions scheduled for June, 2005 will bring the number of BleachWatch participants to more than 100 observers. As of this report there have been only 11 reports from the field, and no coral bleaching was observed (Figure 5).

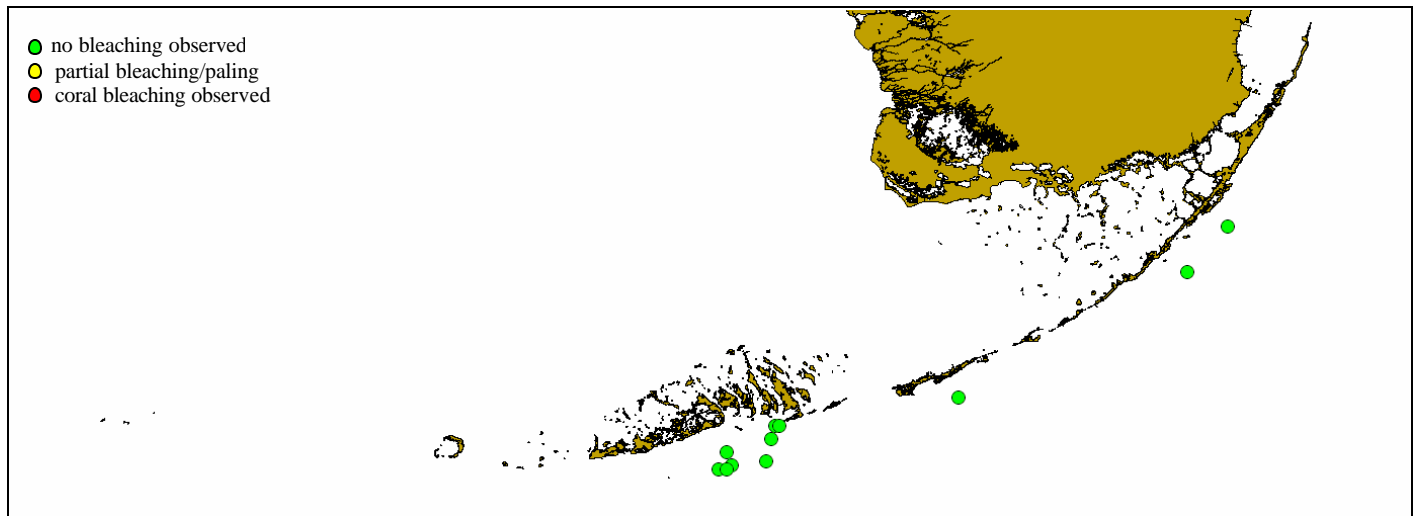


Figure 5. Overview of Bleachwatch observer reports submitted from May1 – May 31, 2005

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>