



Updated October 30, 2007

Summary: Based on climate predictions, current conditions, and field observations, the threat for mass coral bleaching within the FKNMS is currently **LOW**. As a result this will be the final current conditions report for 2007.

Weather and Sea Temperatures

Current remote sensing analysis by NOAA’s Coral Reef Watch program indicates that sea temperature stress continues to decrease for the Florida Keys region. NOAA’s recent Coral Bleaching HotSpot Map, which depicts the current Sea Surface Temperature (SST) compared to the historically expected SST’s for the region, shows that despite the elevated temperatures continuing to affect the eastern Caribbean, sea surface temperatures have returned to “normal” for the Florida Keys National Marine Sanctuary and surrounding waters (Figure 1). NOAA’s latest Degree Heating Weeks (DHW) map, illustrating accumulation of elevated sea surface temperature in an area based on the previous 12 weeks (Figure 2), indicates that accumulated temperature stress for the Florida Keys region, while still elevated, has continued to decrease. Furthermore, if SST’s continue to decrease, DHW maps in the next few weeks will likely continue to show a reduction in accumulated temperature stress for the region. NOAA’s Integrated Coral Observing Network (ICON) monitoring stations also indicate that sea temperatures throughout the Florida Keys, at least along the outer reef tract, have decreased during the past week (Figure 3), and breezy conditions for the same period further reduce the likelihood for significant bleaching (Figure 4).

Based on current environmental conditions including elevated winds and decreasing SST’s the threat of a mass coral bleaching event in the Florida Keys National Marine Sanctuary and surrounding waters seems highly unlikely and as a result, this will be the final current conditions report for 2007.

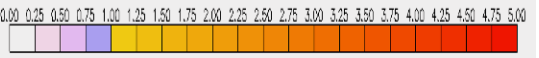
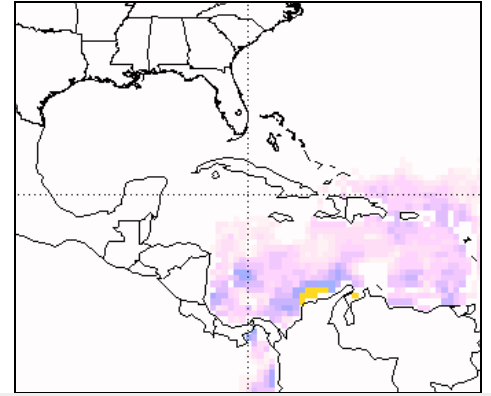


Figure 1. NOAA’s Coral Bleaching HotSpot Map for October 29, 2007.

www.osdpd.noaa.gov/PSB/EPS/SST/climohot.html

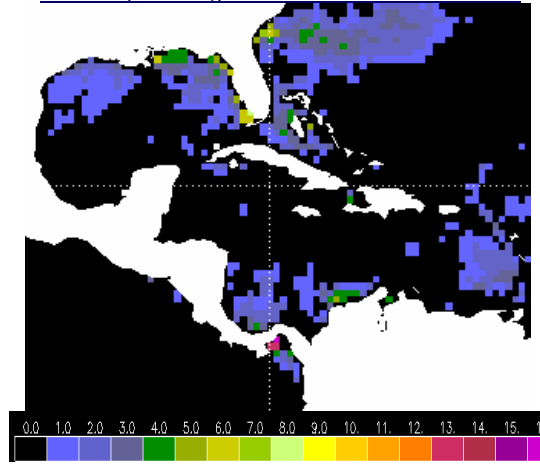


Figure 2. NOAA’s Degree Heating Weeks Map for October 29, 2007.

www.osdpd.noaa.gov/PSB/EPS/SST/dhw_retro.html

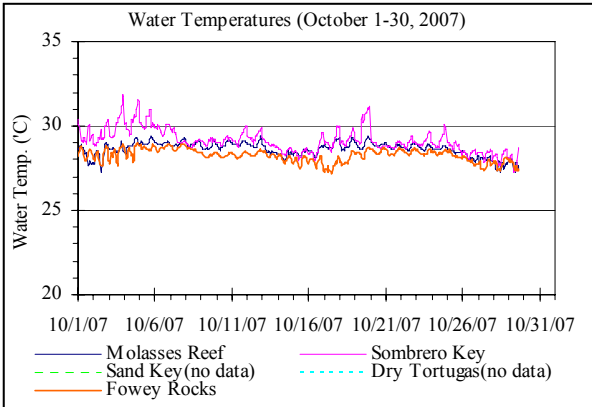


Figure 3. Summary of *in-situ* sea temperature data from NOAA/ICON monitoring stations (Oct. 1-30, 2007).

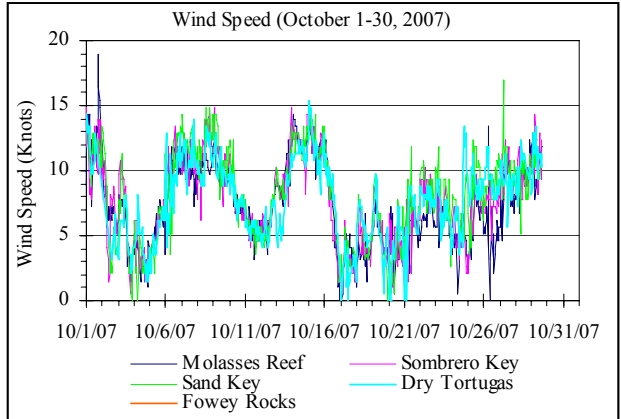


Figure 4. Summary of wind speed data from NOAA/ICON monitoring stations (Oct. 1-30, 2007).



Coral Bleaching Early Warning Network

Current Conditions 2007 Final Report #20071030



Conditions of Corals

The 2007 BleachWatch season has come to an end with a total of 264 reports submitted by BleachWatch observers (Figure 5), including both reports of bleaching and no bleaching. In the past month there have been 22 BleachWatch Observer reports received from throughout the Florida Keys (Figure 6), with 9 reports indicating isolated paling or partial bleached colonies, including *Agaricia sp.*, *Oculina sp.*, *Siderastrea sp.*, and some *Diploria sp.*, still being noted.



Figure 5. Photo of BleachWatch Observer at a hardbottom reef off of the Marquesas Keys, October 2007.

Based on current environmental conditions and the limited number of isolated paling or partially bleached corals noted by BleachWatch observers, the threat of mass coral bleaching in the Florida Keys National Marine Sanctuary and surrounding waters seems highly unlikely. As a result, this will be the final current conditions report for 2007.

THANK YOU OBSERVERS FOR YOUR HARD WORK!

BleachWatch Reports for October 1-30, 2007

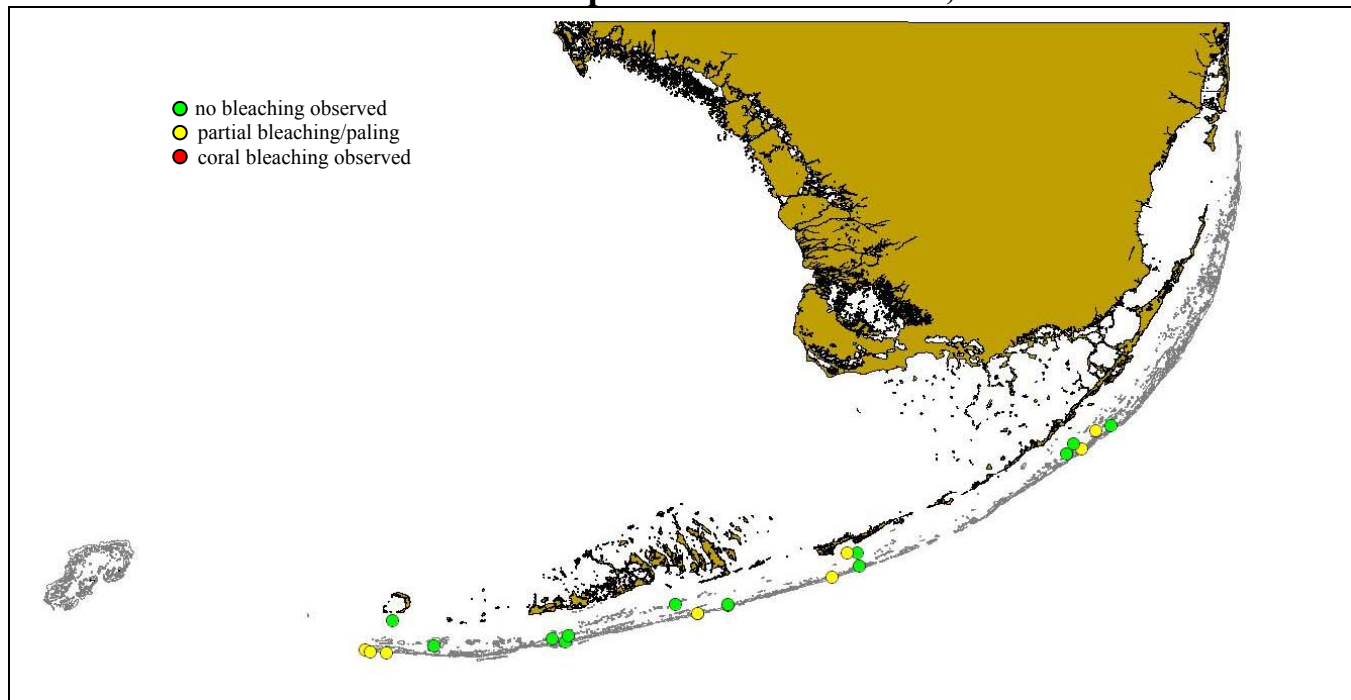


Figure 6. Overview of BleachWatch observer reports submitted from October 1-30, 2007.

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

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