Mote Marine Laboratory / Florida Keys National Marine Sanctuary

Coral Bleaching Early Warning Network

Current Conditions Report #20100601

Updated June 1, 2010

Summary: Based on climate predictions, current conditions, and field observations, the threat for mass coral bleaching within the FKNMS remains **LOW.**

NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook
June – September 2010 (experimental)

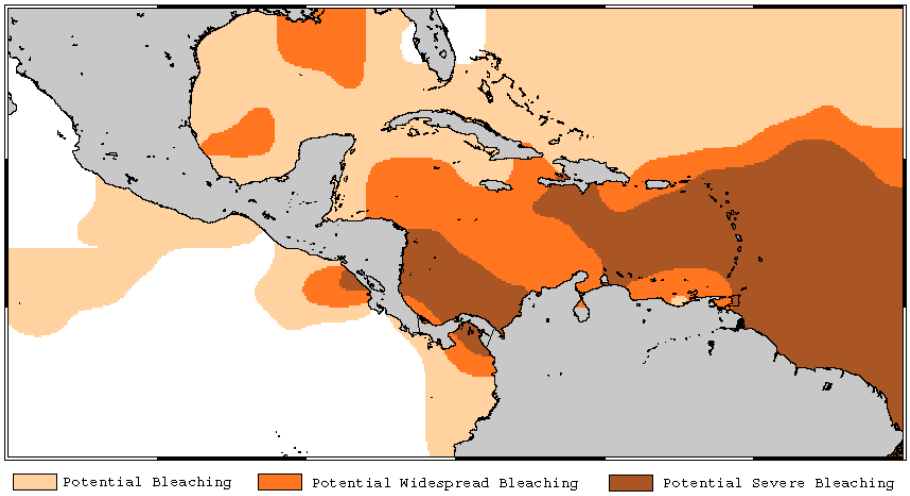

Figure 1. NOAA's Experimental Coral Bleaching Thermal Stress Outlook for June – September, 2010.
http://coralreefwatch.noaa.gov/satellite/bleachingoutlook/index.html

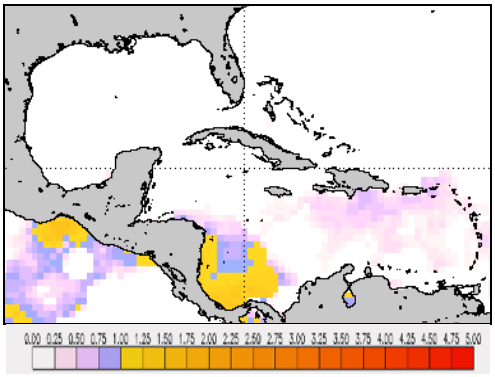

Figure 2. NOAA's Experimental Coral Bleaching HotSpot Map for May 31, 2010.
http://coralreefwatch.noaa.gov/satellite/e50/

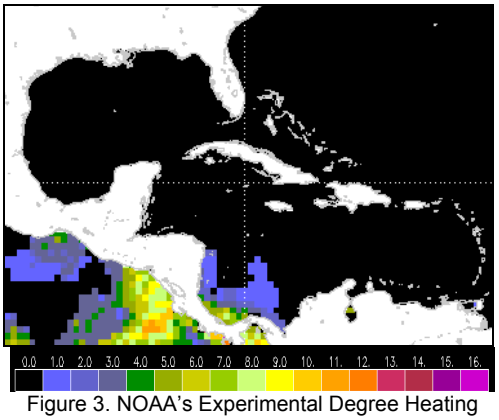

Figure 3. NOAA's Experimental Degree Heating Weeks Map for May 31, 2010.
http://coralreefwatch.noaa.gov/satellite/e50/

Weather and Sea Temperatures

According to the latest NOAA Coral Reef Watch (CRW) experimental Coral Bleaching Thermal Stress Outlook, there is potential for coral bleaching throughout the Florida Keys region in the coming months, as well as widespread and potentially severe bleaching for some parts of the Caribbean for the remainder of the summer of 2010. (Fig. 1).

Current remote sensing analysis by NOAA's CRW program indicates that the Florida Keys region is currently experiencing no thermal stress. NOAA's recent experimental Coral Bleaching HotSpot Map (Fig.2), current sea surface temperatures compared to the average temperature for the warmest month, shows no current stressful temperatures for the Florida Keys. Similarly, NOAA's latest experimental Degree Heating Weeks (DHW) map, which shows how much heat stress has built up over the past 12 weeks (Fig.3), shows no accumulated temperature stress in the Florida Keys region. NOAA's Integrated Coral Observing Network (ICON) monitoring stations indicate that sea temperatures throughout the Florida Keys, at least along the outer reef tract, are still currently below 30°C (Fig.4). *In-situ* sea temperature data is currently not available for Sand Key, Sombrero, or Dry Tortugas regions.

Mote Marine Laboratory will continue to monitor the NOAA HotSpot maps, DHW maps, and ICON sea temperature data from NOAA monitoring stations on a weekly basis for the remainder of the bleaching season.

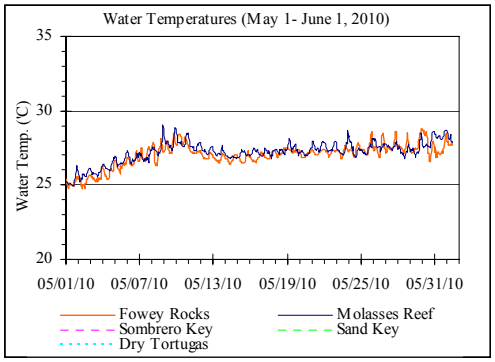

Figure 4. *in-situ* sea temperature from NOAA/ICON monitoring stations (May 1- June 1, 2010).

Observer Network Training

NOAA's CRW experimental Coral Bleaching Alert Area (Fig. 5) currently indicates no alert levels for the Florida Keys area. However, BleachWatch observers are encouraged to start submitting your observations after every visit to the reef, **even if no bleaching was observed**. Frequent coral condition observations from throughout the Florida Keys are needed for the remainder of the summer season. To submit an observation on coral condition, or for more information on the Florida Keys BleachWatch program, please go to www.mote.org/bleachwatch

For information on joining the BleachWatch program, or to organize a training session for your group or organization, please contact the number below.

NOAA Coral Reef Watch Satellite Coral Bleaching Alert Area
May 31, 2010

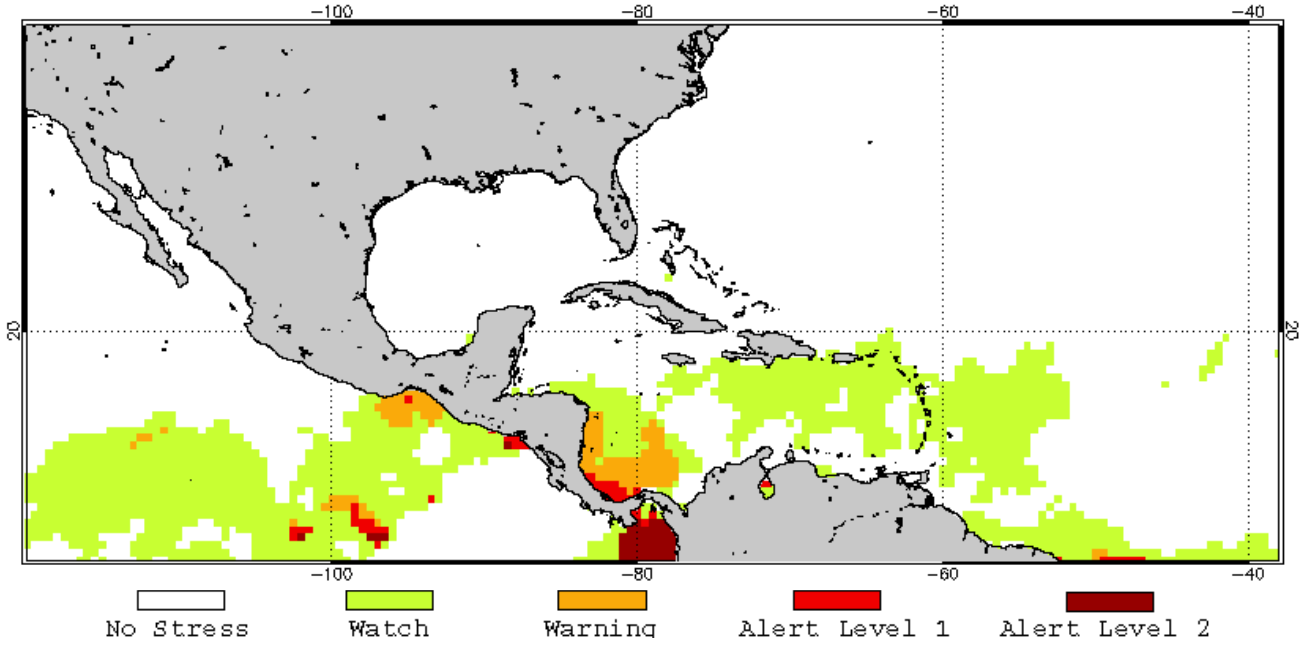

Figure 1. NOAA's Experimental Coral Bleaching Alert Area for May 31, 2010.
http://coralreefwatch.noaa.gov/satellite/e50/index.html

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

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www.mote.org/bleachwatch

FUNDING THANKS TO….

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NOAA CORAL REEF CONSERVATION PROGRAM