

Mote Marine Laboratory / Florida Keys National Marine Sanctuary

Coral Bleaching Early Warning Network

Current Conditions Report #20130603



Updated June 3, 2013

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 2013 (experimental)

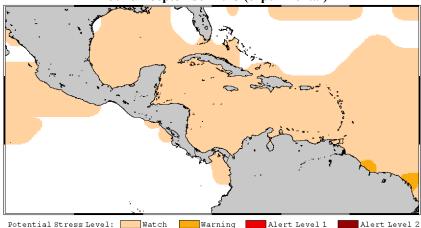


Figure 1. NOAA's Experimental 5km Coral Bleaching Thermal Stress Outlook for June – September, 2013. http://coralreefwatch.noaa.gov/satellite/bleachingoutlook/index.html

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 the rest of the Caribbean for the remainder of the summer of 2013. (Fig. 1).

Current remote sensing analysis by NOAA's CRW program indicates that the Florida Keys region is currently experiencing minimal thermal stress. NOAA's recent experimental 5 km Coral Bleaching HotSpot Map (Fig.2), which illustrates current sea surface temperatures compared to the average temperature for the warmest month, shows no elevated temperatures for the Florida Keys. Similarly, NOAA's latest experimental 5 km Degree Heating Weeks (DHW) map, which indicates 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 confirms that sea temperatures throughout the Florida Keys, at least along the outer reef tract, are still currently below 30°C (Fig.4); perhaps due in part to breezy conditions observed during this time frame (Fig 5). *In-situ* sea temperature data is currently not available for Sand Key or Sombrero Reef. Similarly Dry Tortugas station is not recording any data at this time.

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.

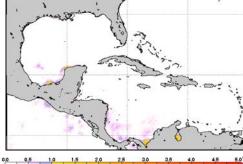


Figure 2. NOAA's Experimental 5km Coral Bleaching
HotSpot Map for June 1, 2013.

http://coralreefwatch.noaa.gov/satellite/bleaching5km

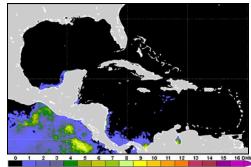


Figure 3. NOAA's Experimental 5km Degree Heating Weeks Map for June 1, 2013.

http://coralreefwatch.noaa.gov/satellite/bleaching5km

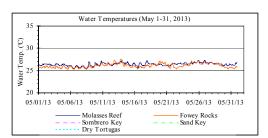


Figure 4. *in-situ* sea temperature from NOAA/ICON monitoring stations (May 1-31, 2013).

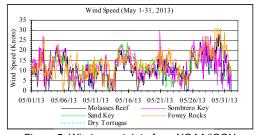


Figure 5. Wind speed data from NOAA/ICON monitoring stations (May 1-31, 2013).



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Observer Network Training

NOAA's CRW experimental 5 km Coral Bleaching Alert Area (Fig. 6) 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

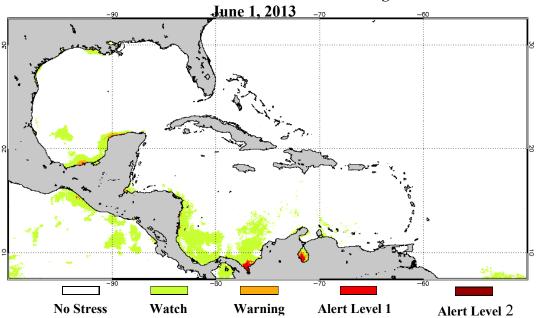


Figure 5. NOAA's Experimental 5km Coral Bleaching Alert Area for June 1, 2013. http://coralreefwatch.noaa.gov/satellite/bleaching5km/

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

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