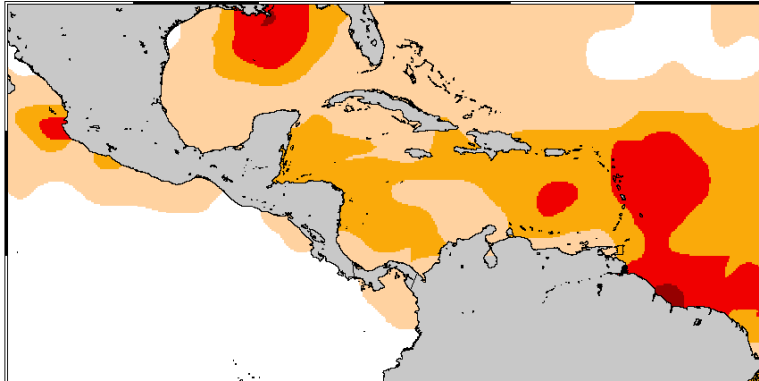




Updated July 1, 2011

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 July – October 2011 (experimental)



Potential Stress Level: Watch Warning Alert Level 1 Alert Level 2

Figure 1. NOAA's Experimental Coral Bleaching Thermal Stress Outlook for July – October, 2011.

<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 continues to be the 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 2011. (Fig. 1).

Current remote sensing analysis by NOAA's CRW program indicates that the Florida Keys region is presently experiencing no thermal stress. NOAA's recent experimental Coral Bleaching HotSpot Map (Fig.2), which illustrates 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 indicates how much heat stress has built up over the past 12 weeks (Fig.3), indicates no accumulated temperature stress in the Florida Keys region. NOAA's Integrated Coral Observing Network (ICON) monitoring stations, which provide near real time *in-situ* sea temperature data along the outer reef tract throughout the Florida Keys, confirm that while temperatures appeared to be rapidly increasing and exceeded 30°C by mid-June (Fig.4), temperatures have decreased slightly and are presently below 30°C, likely due in part to elevated wind speeds observed over the past week (Fig. 5). *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 monitoring stations on a weekly basis for the remainder of the bleaching season.

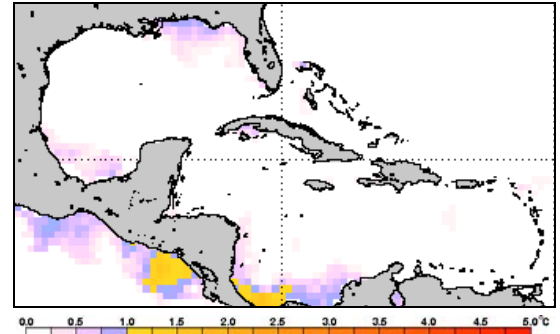


Figure 2. NOAA's Experimental Coral Bleaching HotSpot Map for June 30, 2011.

<http://coralreefwatch.noaa.gov/satellite/e50/>

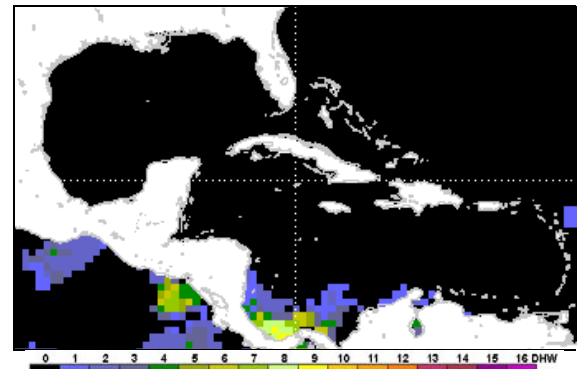


Figure 3. NOAA's Experimental Degree Heating Weeks Map for June 30, 2011.

<http://coralreefwatch.noaa.gov/satellite/e50/>

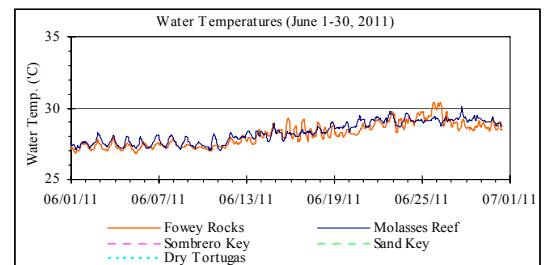


Figure 4. *in-situ* sea temperature from NOAA/ICON monitoring stations (June 1-30, 2011).

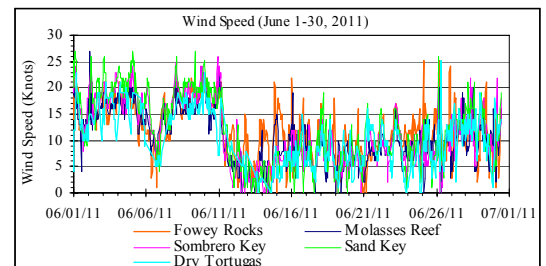


Figure 5. Wind speed data from NOAA/ICON monitoring stations (June 1-30, 2011).



Coral Bleaching Early Warning Network

Current Conditions Report #20110701



Conditions of Corals

A total of 45 BleachWatch Observer reports were received during the month of June, with only 2 reports indicating isolated colonies exhibiting signs of paling. The remaining 43 reports indicated that no significant signs of coral bleaching were observed. At those sites where partial bleaching or paling was noted (Fig.5), the overall percentage of corals exhibiting signs of thermal stress was typically only 1-10% of corals at each site.



Photo: Kate Correia/MML

Figure 7. *Diploria strigosa* with Black Band disease at a reef north of Looe Key on June 24, 2011.

The majority of isolated paling observations consisted of Leaf/Plate/Sheet corals. Other observations included paling of *Palythoa spp.* and Fire Coral, as well as several reports of coral disease, including active Black Band Disease noted at several reef sites in the Middle and Lower Keys (Fig.7).

These isolated observations of paling and partial bleaching do not necessarily indicate the onset of a mass bleaching event; however, continued field observations are needed as more widespread coral bleaching could develop if environmental conditions continue to be favorable.

BleachWatch Reports for June 1-30, 2011

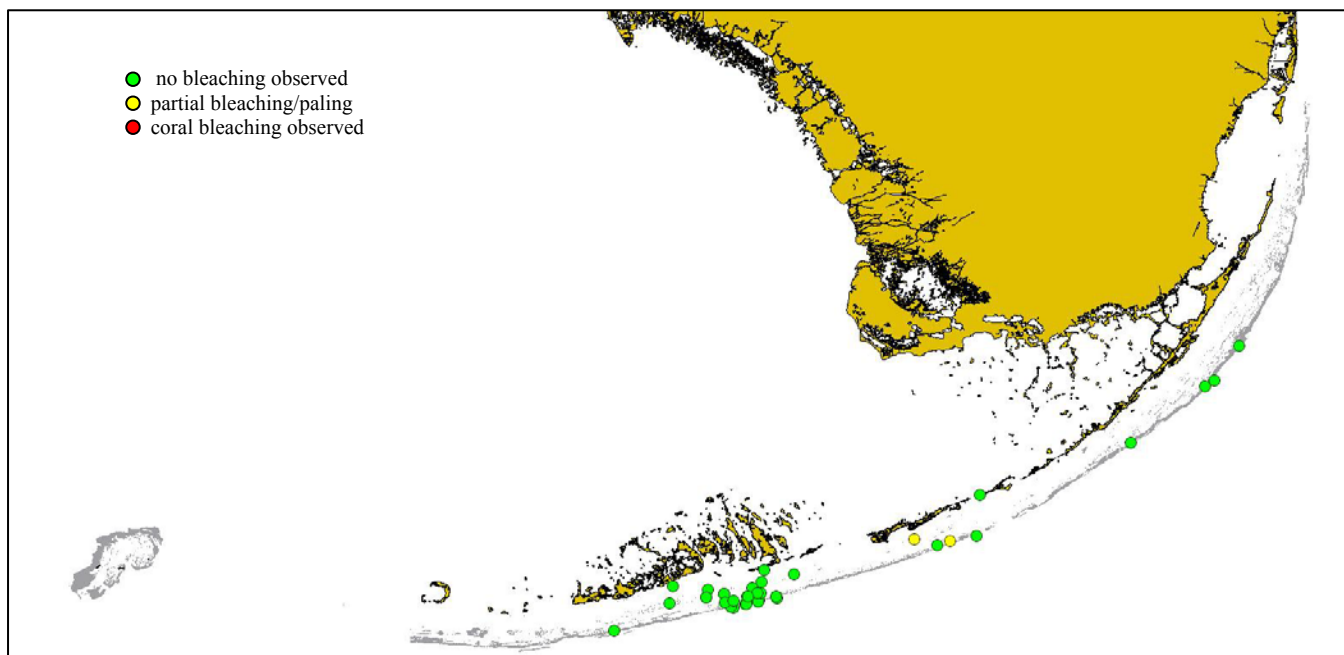


Figure 6. Overview of BleachWatch observer reports submitted from June 1-30, 2011.

Funding Provided By:

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

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Summerland Key, FL 33042
(305) 745-2729 x301

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



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