



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 Current and 60% Probability Coral Bleaching Alert Outlook November 7, 2015 (experimental)

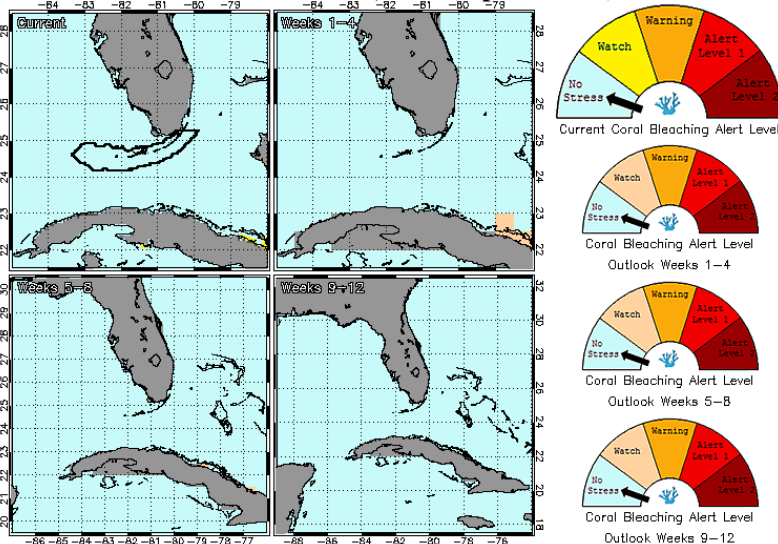


Figure 1. NOAA's 5 km Experimental Current and 60% Probability Coral Bleaching Alert Outlook Areas through February 2016 (Updated November 7, 2015). http://coralreefwatch.noaa.gov/vs/gauges/florida_keys.php

Weather and Sea Temperatures

According to the newly released NOAA Coral Reef Watch (CRW) experimental 5 kilometer (km) Satellite Current and 60% Probability Coral Bleaching Alert Area, areas of the Florida Keys National Sanctuary (FKNMS) has been reduced to No Stress, indicating that although previous thermal stress exposure may still be adversely impacting corals, recovery may be underway (Fig. 1).

Recent remote sensing analysis by NOAA's CRW program indicates that the entire Florida Keys region continues to experience decreasing thermal stress. NOAA's new 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 that temperatures are not elevated for the Florida Keys. Similarly, NOAA's experimental 5 km Degree Heating Weeks (DHW) map, which illustrates how much heat stress has built up over the past 12 weeks (Fig. 3), confirms that the level of accumulated temperature stress has decreased for 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, confirms that sea temperatures have decreased to below 30°C (Fig.4), likely due in part to breezy conditions observed during most of the past 4 weeks (Fig. 5) In-situ sea temperature data is currently only available at Molasses Reef and Fowey Rocks. Sombrero is not recording data at this time. Because the CRW's program continues to maintain a coral bleaching alert status of "No Stress" indicating that coral bleaching is not likely, and due to the current environmental conditions, this will be the final current conditions report for 2015 BleachWatch season.

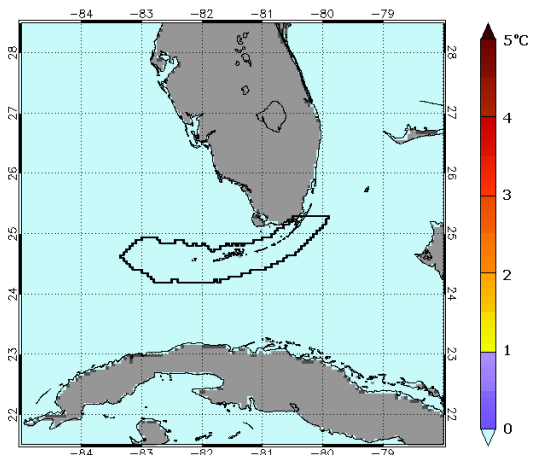


Figure 2. NOAA's Experimental 5km Coral Bleaching HotSpot Map for Florida Nov. 7, 2015. <http://coralreefwatch.noaa.gov/regions/florida.php>

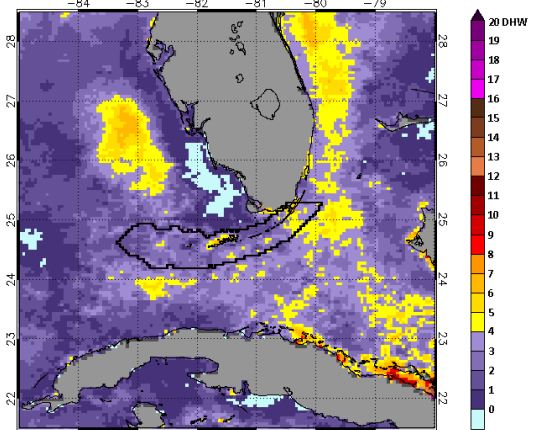


Figure 3. NOAA's Experimental 5km Degree Heating Weeks Map for Florida Nov. 7, 2015. <http://coralreefwatch.noaa.gov/regions/florida.php>

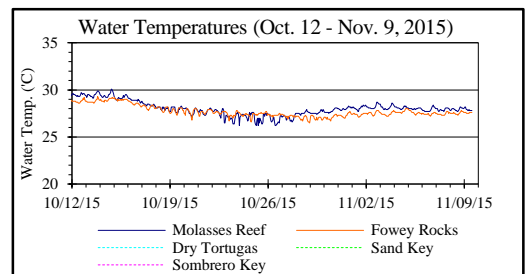


Figure 4. *in-situ* sea temperature from NOAA/ICON monitoring stations (Oct. 12 - Nov. 9, 2015).

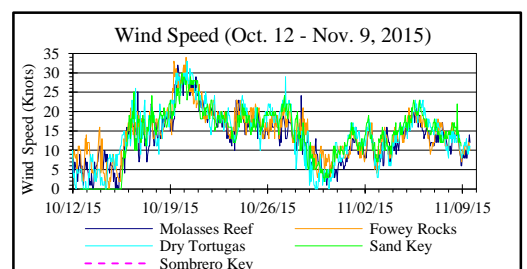


Figure 5. Wind speed data from NOAA/ICON monitoring stations (Oct. 12 - Nov. 9, 2015).



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20151109



Current Coral Conditions

A total of 18 BleachWatch Observer reports were received during the last four weeks (Fig. 6), with all reports still indicating paling or partial bleaching on most species, with 11-75% of the corals still affected. Several reports noted observations of color returning in *Siderastrea spp.*, *Acropora spp.*, *Orbicella spp.*, *Colpophyllia natans*, *Pseudodiploria spp.*, and *Porites spp.* However, several reports indicate that bleached *Palythoa spp.*, Fire Coral, and Gorgonians are still being observed.

The 2015 BleachWatch season has officially come to an end with a total of 320 reports submitted by BleachWatch observers (Fig. 7). Observer reports verified that coral bleaching was widespread throughout the Florida Keys region in 2015, with all reefs showing significant signs of thermal stress from June through October, 2015 (Fig. 8). However, based on current environmental conditions and the observations of coral recovery noted by BleachWatch observers, the threat of mass coral bleaching in the Florida Keys National Marine Sanctuary and surrounding waters seems highly unlikely at this time. As a result, this will be the final current conditions report for 2015.

THANK YOU BLEACHWATCH OBSERVERS!!!!

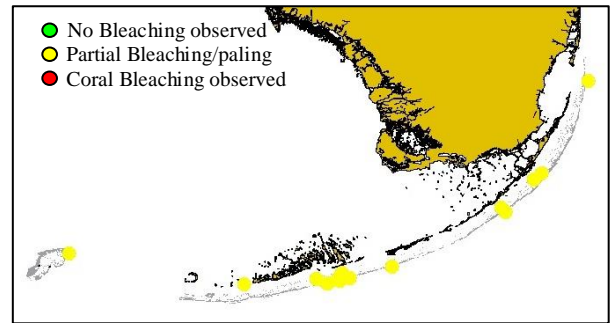


Figure 6. Overview of reports submitted Oct.12-Nov. 9, 2015

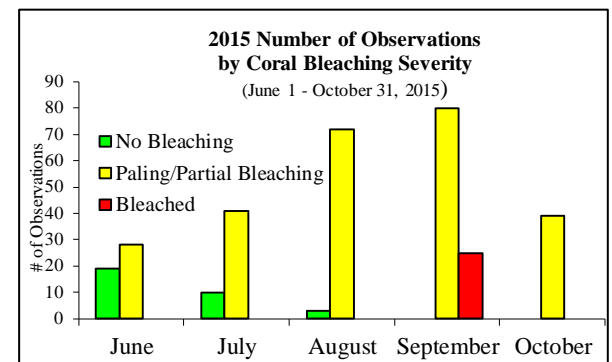


Figure 8. Bleaching severity by month for June-October 2015.

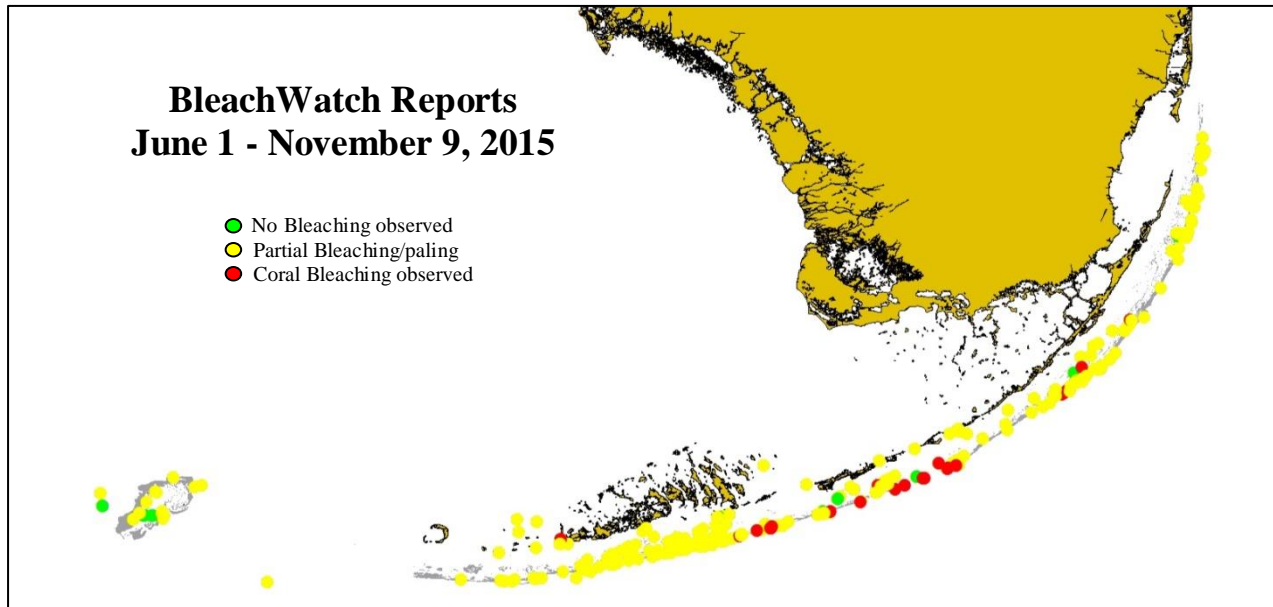


Figure 7. Summary map of all Florida Keys BleachWatch Observer reports submitted during the 2015 coral bleaching season.

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

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