



Updated June 29, 2018

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

### NOAA Coral Reef Watch Current and 60% Probability Coral Bleaching Alert Outlook June 27, 2018 (experimental)

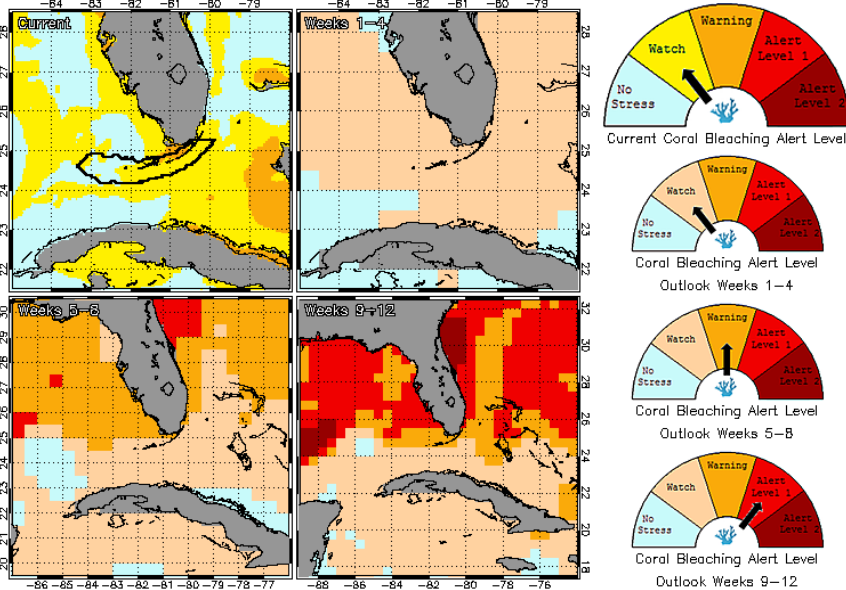


Figure 1. NOAA's 5 km Experimental Current and 60% Probability Coral Bleaching Alert Outlook Areas through September 2018. Updated June 27, 2018. [http://coralreefwatch.noaa.gov/vs/gauges/florida\\_keys.php](http://coralreefwatch.noaa.gov/vs/gauges/florida_keys.php)

### 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, there is currently a bleaching watch for the Florida Keys National Marine Sanctuary, with the potential for more bleaching warnings and alerts if sea temperatures continue to increase in the next few weeks (Fig. 1).

Recent remote sensing analysis by NOAA's CRW program indicates that most of the Florida Keys region is currently experiencing minimal 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 temperatures are only slightly 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), indicates minimal accumulating temperature stress currently evident 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 temperatures have been steadily increasing over the past four weeks to 30°C (Fig.4), likely due in part to lighter wind conditions observed during this time (Fig. 5). *In-situ* sea temperature data is currently only available at Molasses Reef and Fowey Rocks. Sand Key is not recording wind 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.

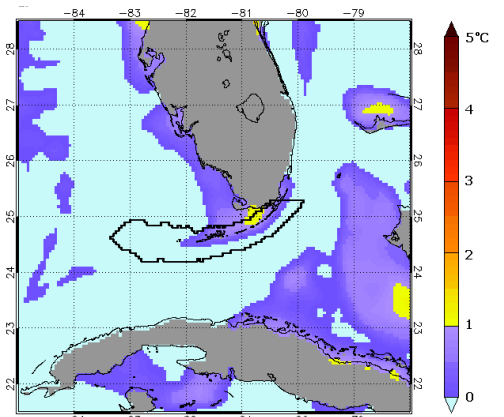


Figure 2. NOAA's Experimental 5km Coral Bleaching HotSpot Map for Florida June 27, 2018. <http://coralreefwatch.noaa.gov/regions/florida.php>

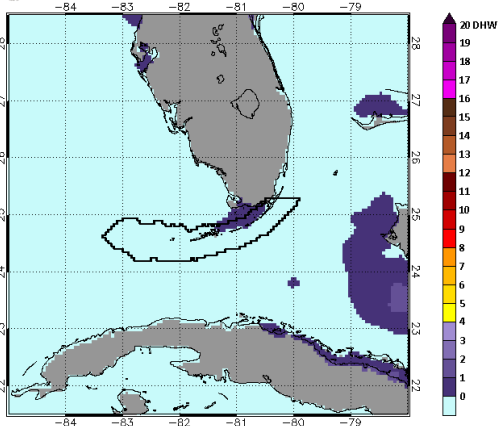


Figure 3. NOAA's Experimental 5km Degree Heating Weeks Map for Florida June 27, 2018. <http://coralreefwatch.noaa.gov/regions/florida.php>

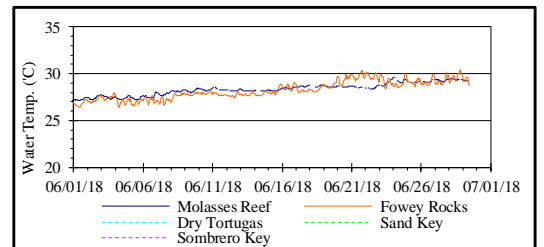


Figure 4. *in-situ* sea temperature from NOAA/ICON monitoring stations (June 1-29, 2018).

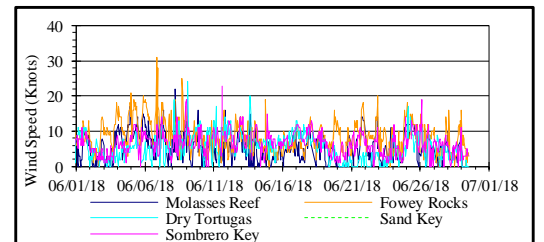


Figure 5. Wind speed data from NOAA/ICON monitoring stations (June 1-29, 2018).



Mote Marine Laboratory / Florida Keys National Marine Sanctuary  
**Coral Bleaching Early Warning Network**  
**Current Conditions Report #20180629**



**Current Coral Conditions**

A total of 40 BleachWatch Observer reports were received during the month of June (Fig. 6), with 10 reports indicating isolated colonies exhibiting signs of paling (Fig. 7). The remaining 30 reports indicated that no significant signs of coral bleaching were observed (Fig. 8). At those sites where paling/partial bleaching was noted, the overall percentage of corals exhibiting signs of thermal stress was only 1-10%, and the majority of paling observations consisted of isolated colonies of Encrusting/Mound/Boulder corals; *Siderastrea siderea* and *Siderastrea radians*. Other observations included paling of *Palythoa spp.*, and Fire Coral as well as several reports of coral disease (Fig. 9). Due to increase in coral disease observations in the Middle and Lower Keys area, observers are encouraged to report if disease is both present or absent at their sites.

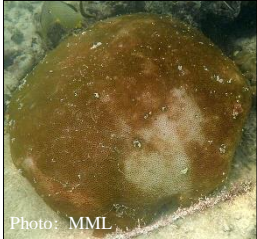


Photo: MML  
 Figure 7. Paling/stressed *Siderastrea siderea* at Japp Reef on 6/15/18.



Photo: DiveN2Life Lower Keys Scientific Divers  
 Figure 8. Healthy *Colpophyllia natans* at Looe Reef on 6/24/18.

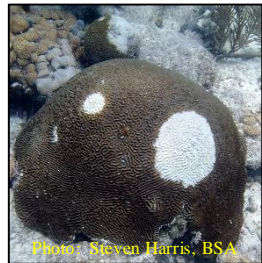


Photo: Steven Harris, BSA  
 Figure 9. A *Pseudodiploria strigosa* with tissue loss disease at Looe Key SPA on 6/9/18.

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

**BleachWatch Reports for June 1-29, 2018**

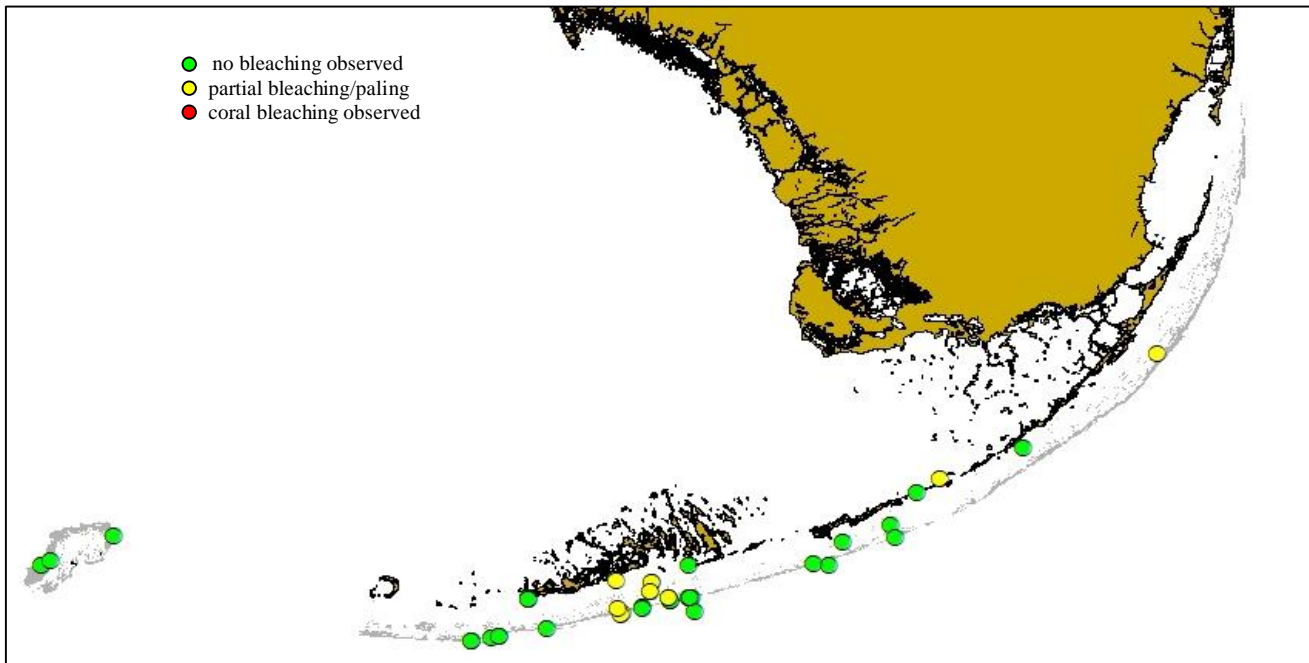


Figure 6. Overview of BleachWatch observer reports submitted from June 1-29, 2018

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



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**FUNDING THANKS TO....**

