



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20190603



Updated June 3, 2019

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 1, 2019 (experimental)

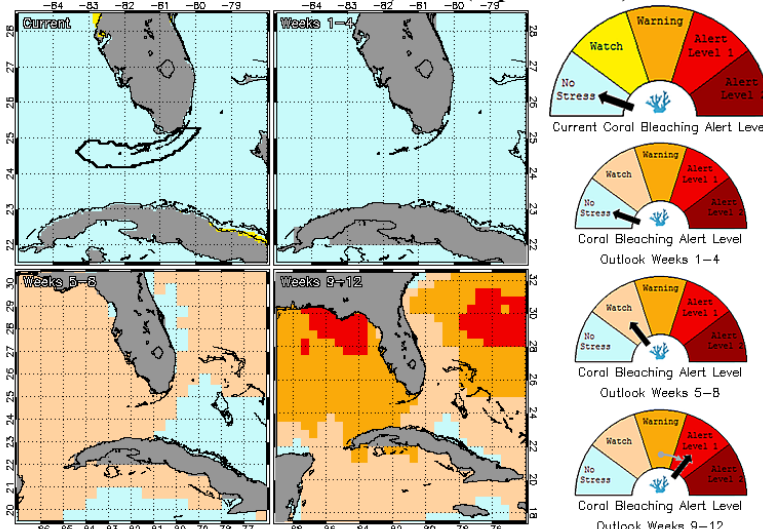


Figure 1. NOAA's 5 km Experimental Current and 60% Probability Coral Bleaching Alert Outlook Areas through August 2018. Updated June 1, 2019.
http://coralreefwatch.noaa.gov/vs/gauges/florida_keys.php

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 no bleaching threat for the Florida Keys National Marine Sanctuary. However, potential bleaching watches, warnings and alerts are possible if sea temperatures continue to increase in the next few months (Fig. 1).

Recent remote sensing analysis by NOAA's CRW program indicates that the Florida Keys region is not currently experiencing 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 sea surface temperatures are currently not elevated above normal in 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 no accumulated 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 are not currently operational, with only wind speed data available from the Dry Tortugas station. Mote Marine Laboratory (MML) *in-situ* temperature collected at Looe Reef SPA and Newfound Harbor SPA showed temperatures were at 30°C, but have since decreased to below 30°C over the past two weeks (Fig.4), likely due in part to breezy conditions observed during this time frame (Fig. 5). MML 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.

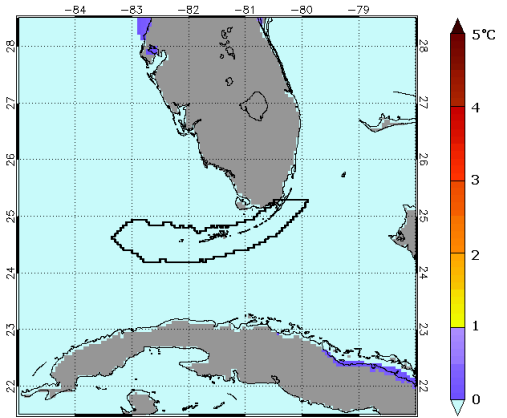


Figure 2. NOAA's Experimental 5km Coral Bleaching HotSpot Map for Florida June 1, 2019.
<http://coralreefwatch.noaa.gov/regions/florida.php>

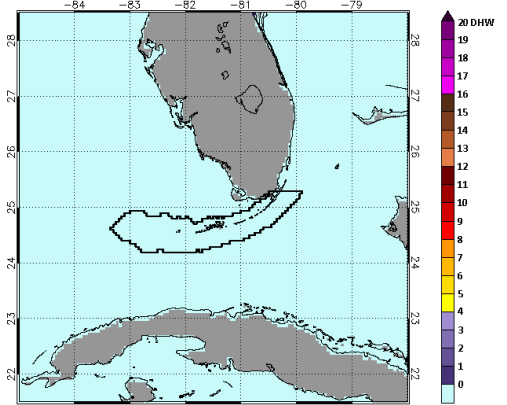


Figure 3. NOAA's Experimental 5km Degree Heating Weeks Map for Florida June 1, 2019.
<http://coralreefwatch.noaa.gov/regions/florida.php>

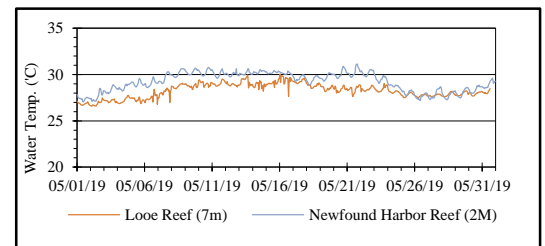


Figure 4. *in-situ* sea temperature from MML monitoring stations (May 1-31, 2019).

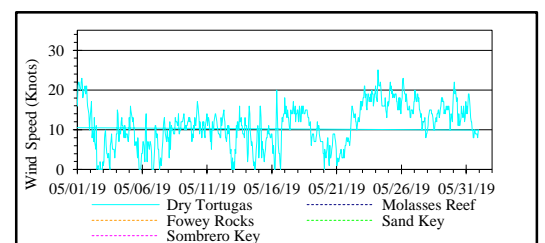


Figure 5. Wind speed data from NOAA/ICON monitoring stations (May 1-31, 2019).



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Current Coral Conditions

BleachWatch observers are encouraged to start submitting your observations of **coral bleaching and disease** after every visit to the reef, **even if NO bleaching was observed**. Frequent coral conditions observations from throughout the Florida Keys are needed for the remainder of the summer season. Please report ANY coral disease at your sites and take note of how many corals are affected. To submit an observation on coral condition, or for more information on the Florida Keys BleachWatch program, please go to www.mote.org/bleachwatch

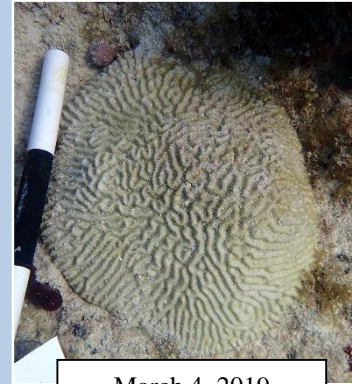
Pseudodiploria strigosa with Stony Coral Tissue Loss Disease (SCTLD) at an offshore reef west of Looe Key SPA.



January 18, 2019



February 1, 2019



March 4, 2019

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

There is currently one training session planned for June 2019, with plans of a training in Key West and Islamorada in July. Please pass this information on to others who might be interested and have them RSVP. If you have attended a training session in previous years, it is not necessary to attend again unless you need a refresher or would like to learn more on the Stony Coral Tissue Loss Disease and how to identify and report it.



Mote Marine Laboratory
 24244 Overseas Hwy
 Summerland Key, FL
 Wednesday, June 19, 2019
 6:00 p.m.



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

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 Summerland Key, FL 33042
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<http://www.mote.org/bleachwatch>

Funding Provided By:

