



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20240528



Updated May 28, 2023

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 May 26, 2024 (experimental)

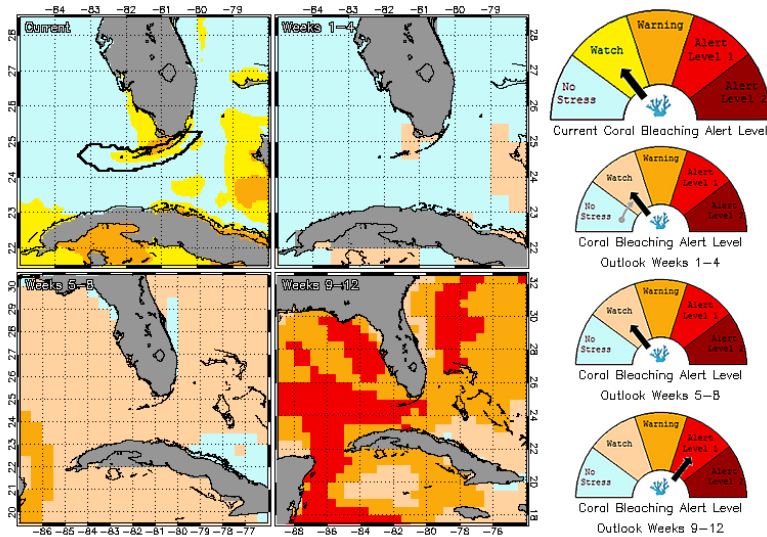


Figure 1. NOAA's 5 km Experimental Current and 60% Probability Coral Bleaching Alert Outlook Areas through August 2024. Updated May 26, 2024.
http://coralreefwatch.noaa.gov/vs/gauges/florida_keys.php

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 and warning for parts of the Florida Keys National Marine Sanctuary with potential for more bleaching warnings and alerts if sea temperatures continue to increase in the next few months (Fig. 1).

Recent remote sensing analysis by NOAA's CRW program indicates that some areas of the Florida Keys region is 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 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 accumulating temperature stress is evident in the Florida Keys region. NOAA's Integrated Coral Observing Network (ICON), which provides near real time *in-situ* wind data at Sombrero Reef, as well as Mote Marine Laboratory (MML) and Pacific Marine Environmental Laboratory (PMEL) *in-situ* temperature data confirm that temperatures have been steadily increasing over the past month to near or slightly above 30°C (Fig.4), likely due in part to low wind conditions observed during the majority of this time (Fig. 5). 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.

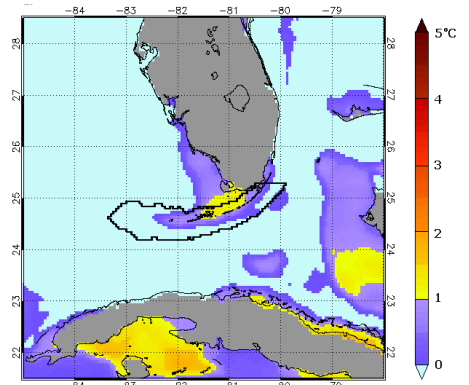


Figure 2. NOAA's Experimental 5km Coral Bleaching HotSpot Map for Florida May 26, 2024.
NOAA Coral Reef Watch Website

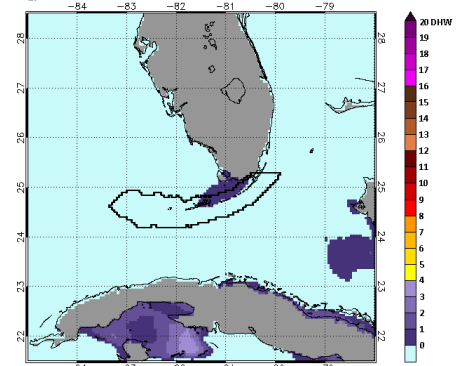


Figure 3. NOAA's Experimental 5km Degree Heating Weeks Map for Florida May 26, 2024.
NOAA Coral Reef Watch Website

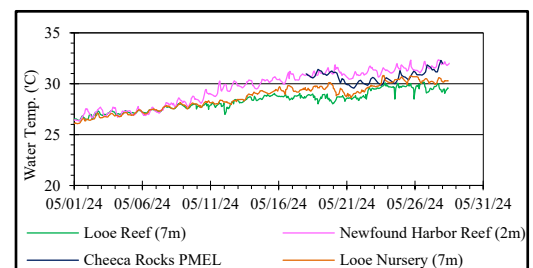


Figure 4. *in-situ* sea temperature from MML monitoring stations (May 1-28, 2024).

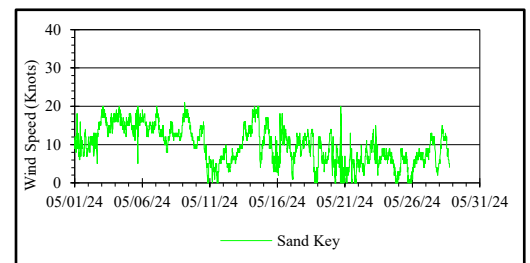


Figure 5. Wind speed data from NOAA/ICON monitoring stations (May 1-28, 2024).



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Current Coral Conditions

BleachWatch observers are encouraged to start submitting your observations of **coral bleaching/no bleaching and disease** 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

Plans are in the works to conduct in-person training if you know of anyone interested in becoming an observer, see the following:

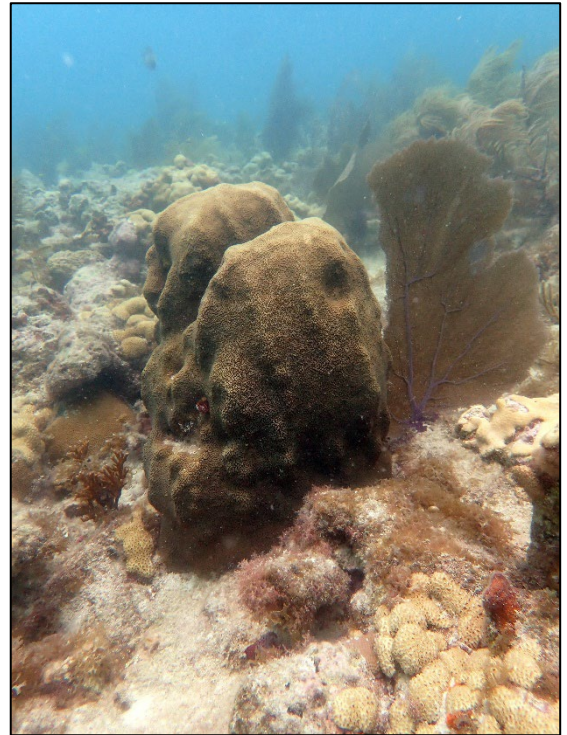
June 10, 2024 – Islamorada 6:00 p.m.
 Keys History & Discovery Center
 82100 Overseas Highway, Islamorada

June 11, 2024 - Key West 6:00 p.m.
 Florida Keys Eco-Discovery Center
 35 Quay Road, Key West

June 12, 2024 – Marathon 6:00 p.m.
 Marathon City Hall
 9805 Overseas Highway, Marathon

June 13, 2024 - Summerland Key 6:00 p.m.
 Mote’s International Center for Coral Reef Research & Restoration
 24244 Overseas Highway, Summerland Key

June 15, 2024 - Key Largo 10 a.m.
 Reefhouse Resort Conference Center
 103800 Overseas Highway, Key Largo



Until then, there is an online training module at mote.org/bleachwatch which can also be used for a refresher for the trained observers. For questions or information about the BleachWatch program please email bleachwatch@mote.org

Funding Provided By:

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

Email: bleachwatch@mote.org
<http://www.mote.org/bleachwatch>

