



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20250910



Updated September 10, 2025

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

NOAA Coral Reef Watch Current and 60% Probability Coral Bleaching Alert Outlook September 10, 2025 (experimental)

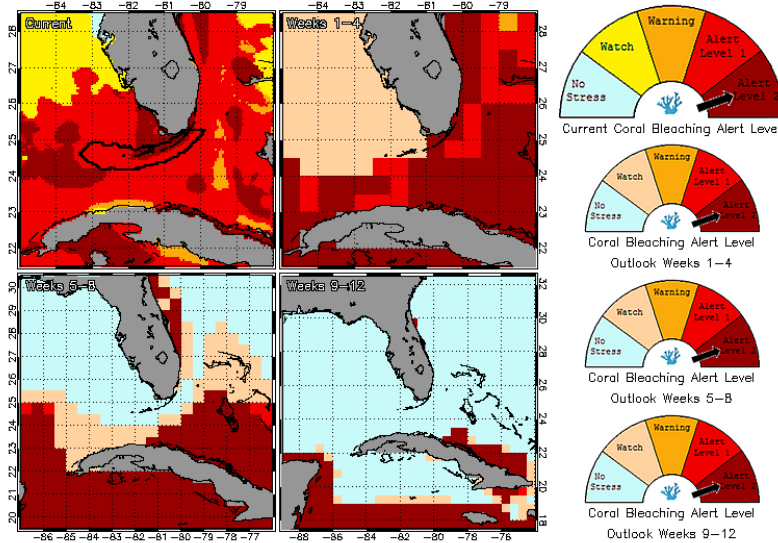


Figure 1. NOAA's 5 km Experimental Current and 60% Probability Coral Bleaching Alert Outlook Areas through November 2025. Updated September 10, 2025.
http://coralreefwatch.noaa.gov/vs/gauges/florida_keys.php

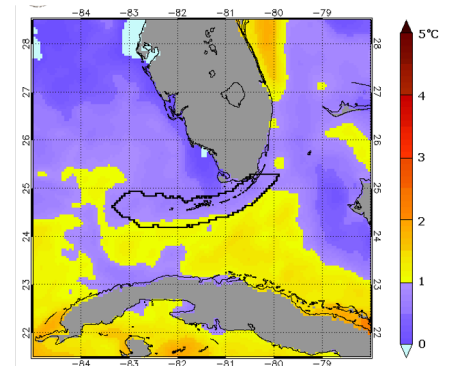


Figure 2. NOAA's Experimental 5km Coral Bleaching HotSpot Map for Florida September 10, 2025.
NOAA Coral Reef Watch Website

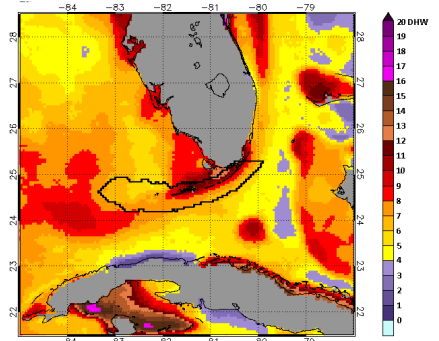


Figure 3. NOAA's Experimental 5km Degree Heating Weeks Map for Florida September 10, 2025.
NOAA Coral Reef Watch Website

Weather and Sea Temperatures

According to the current NOAA Coral Reef Watch (CRW) experimental 5-kilometer (km) Satellite Current and 60% Probability Coral Bleaching Alert Area, most areas of the Florida Keys National Marine Sanctuary are under a "Bleaching Alert Level 2", which means there is a reef-wide risk of bleaching and potential for more bleaching warnings and alerts if sea temperatures continue to be elevated in the next few weeks (Fig. 1).

Recent remote sensing analysis by NOAA's CRW program indicates that all areas of the Florida Keys region are currently experiencing elevated 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 (Fig.3), which illustrates how much heat stress has built up over the past 12 weeks, indicates accumulating temperature stress is evident in the Florida Keys region. Florida Keys National Marine Sanctuary (FKNMS) Aqualink, which provides near real time *in-situ* wind data at Mote's Sand Key Coral Nursery, as well as Aqualink *in-situ* temperature data confirm that temperatures remain above historical maximums, with all areas above 30°C (Fig.4). Mote Marine Laboratory will continue to monitor the NOAA HotSpot maps, DHW maps, and Aqualink sea temperature data from FKNMS monitoring stations on a weekly basis for the remainder of the bleaching season.

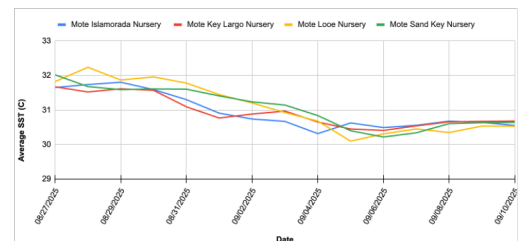


Figure 4. *in-situ* sea temperature from Aqualink monitoring stations (August 27 – September 10, 2025).



Figure 5. Wind speed data from Aqualink's Sand Key Mote Coral Nursery monitoring station (August 27 – September 10, 2025).



Mote Marine Laboratory / Florida Keys National Marine Sanctuary
Coral Bleaching Early Warning Network
Current Conditions Report #20250910



Current Coral Conditions

A total of 19 BleachWatch observer reports were received between August 27-September 10 (Fig. 6), with 19 reports indicating colonies exhibiting signs of paling or partial bleaching (Fig. 8). Zero reports indicated



Figure 7. Bleached *Diploria labyrinthiformis* (DLAB), Elpis Restoration Site

no significant signs of coral bleaching at any site surveyed. At those sites where paling/bleaching was noted, the overall percentage of corals exhibiting signs of stress was 31-50% and majority of paling/partial bleaching observations consisted of isolated colonies of brain / bouldering and branching coral species, including Symmetrical Brain Coral (*Diploria labyrinthiformis*) (Fig 7), and Elkhorn Coral (*Acropora palmata*) (Fig 8). Other observations included paling and bleaching of *encrusting fire coral, palythoa*, and several reports of coral disease, mainly tissue loss.



Figure 8. Partial Bleaching / paling *Acropora palmata* (APAL), Conch Ledge

Continued field observations are needed as widespread coral bleaching could potentially continue to develop if environmental conditions continue to be aversive to coral health. Please remember to report even if there is no bleaching at your site. To submit an observation on coral conditions, or for more information on the Florida Keys BleachWatch program, please go to www.mote.org/bleachwatch.

BleachWatch reports for August 27 – September 10, 2025



Figure 6. Overview of BleachWatch reports from August 27 – September 10, 2025.

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

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

