



Florida Department of Environmental Protection

Coral Reef Conservation Program

SEAFAN BleachWatch Program



Current Conditions Report #20140701

July 1, 2014

Summary: Based on climate predictions and field observations, the threat for mass coral bleaching in southeast Florida, between Miami-Dade and Martin counties, is **LOW**.

Environmental Monitoring

Climate predictions for this current conditions report are based on NOAA's Coral Reef Watch (CRW) satellite imagery products, which summarize sea surface temperature (SST) data and provide an indication as to when conditions are favorable for coral bleaching. Current CRW experimental 5 kilometer (km) Daily Coral Bleaching Alert Area indicates that the southeast Florida region is presently experiencing a low level of thermal stress, although coral bleaching may occur if conditions worsen (Figure 1):

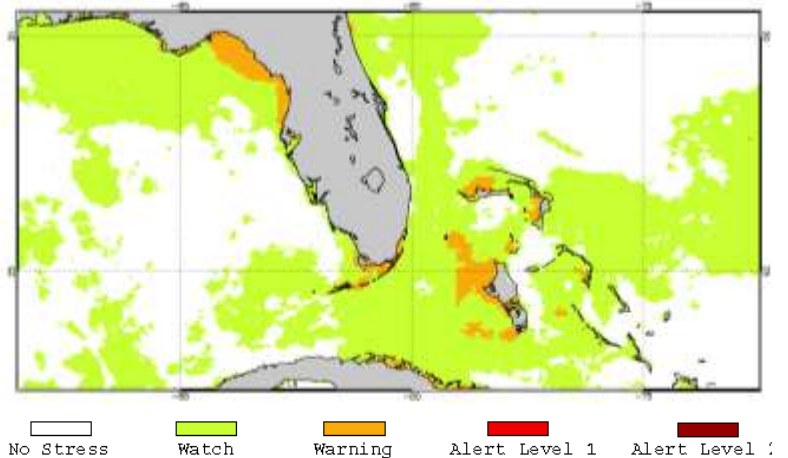


Figure 1. NOAA Coral Reef Watch Experimental Daily 5 km Blended Geo-Polar Nighttime Bleaching Alert Area; June 29, 2014.

<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.html>

- NOAA's experimental 5km Bleaching Hotspot Map (Figure 2) compares current SST to the maximum monthly mean, which is the average temperature during the warmest month of the year. Corals start to become stressed when SST is 1°C greater than the highest monthly average. Currently, SST is slightly elevated but remains below the 1°C Hotspot bleaching threshold.
- Coral bleaching risk increases if the temperature stays elevated for an extended period of time. NOAA's experimental 5km Degree Heating Weeks (DHW) Map (Figure 3) shows the accumulation of temperature stress over the previous 12 weeks, with 1 DHW equal to one week at 1°C greater than the maximum monthly mean. Currently, this map indicates that there is no accumulated temperature stress in the southeast Florida region.
- Near real-time data from CRW's Satellite Virtual Stations indicate that SST at Broward, Palm Beach and Martin reef sites is currently at or slightly above the maximum monthly mean, but remains below the bleaching threshold (Figure 4).

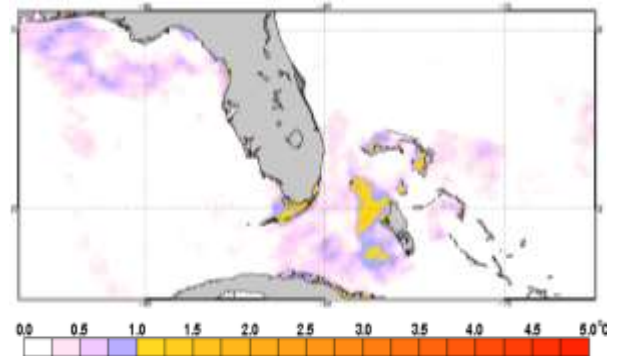


Figure 2. NOAA CRW Experimental Daily 5km Blended Geo-Polar Nighttime Hotspot Map for June 29, 2014.

<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.html>

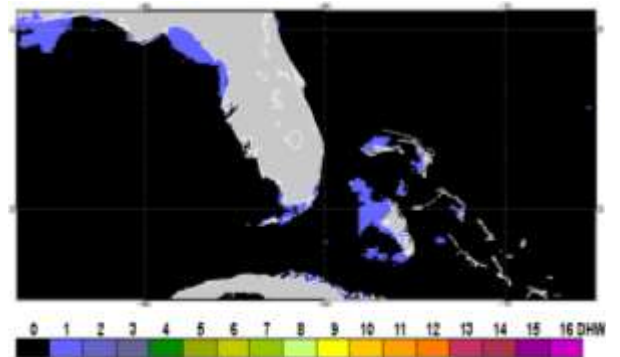


Figure 3. NOAA CRW Experimental Daily 5km Blended Geo-Polar Nighttime Degree Heating Weeks; June 29, 2014.

<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.html>

The Florida Department of Environmental Protection's Coral Reef Conservation Program staff will continue to monitor NOAA's Hotspot, DHW and Alert Area maps, as well as Virtual Station data for the remainder of the summer bleaching season.

Observer Network

While current NOAA CRW satellite data indicates that the coral reefs in southeast Florida are experiencing minimal thermal stress, the Coral Bleaching Thermal Stress Outlook indicates that conditions favorable for bleaching are likely to persist throughout southeast Florida in the coming months (Figure 5).

The BleachWatch Observer Network is encouraged to start submitting observations on coral condition after every visit to the reef for the duration of the summer season. **Remember, reports of ‘No Bleaching’ are just as important as bleaching reports!** To submit a report on coral condition in southeast Florida, or for more information on the SEAFAN BleachWatch Program, please visit www.SEAFAN.net and click “BleachWatch.”

For more information about SEAFAN BleachWatch or to organize a training session for your group to become a part of the Observer Network, please contact the Program Coordinator below.

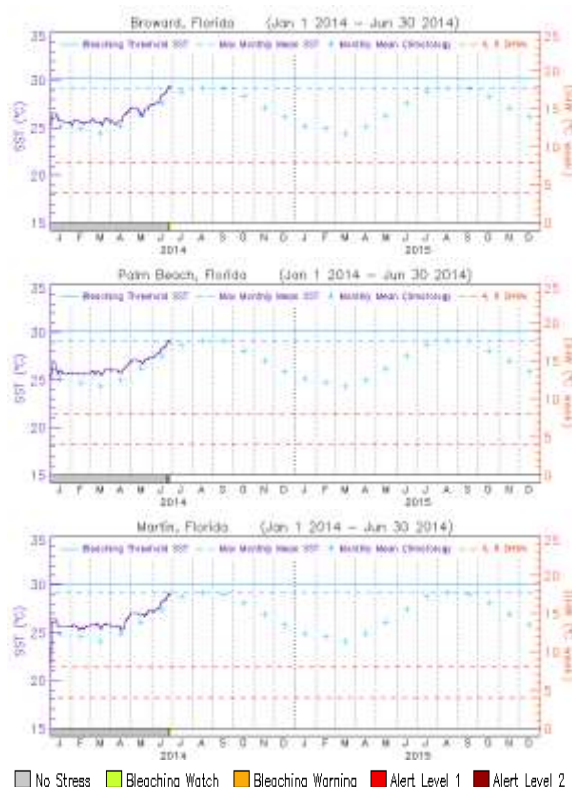


Figure 4. NOAA CRW Virtual Station Data; January 1, 2014 – June 30, 2014.
http://coralreefwatch.noaa.gov/satellite/current/products_vs.html

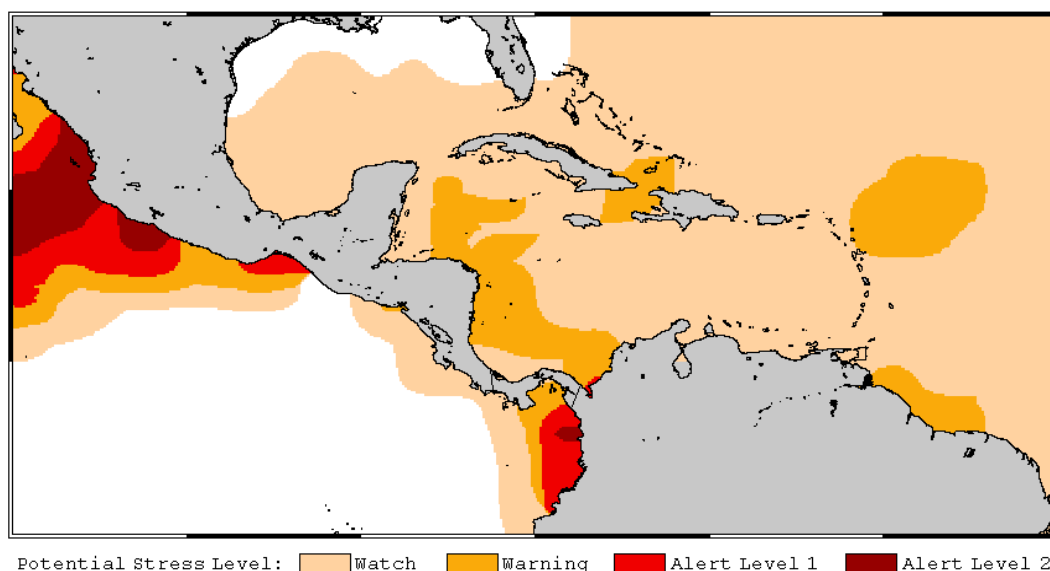


Figure 5. NOAA Coral Reef Watch Experimental Coral Bleaching Thermal Stress Outlook for July – October, 2014.
<http://coralreefwatch.noaa.gov/satellite/bleachingoutlook/index.html>

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Program Partners:

