



# SEAFAN BleachWatch Program

CURRENT CONDITIONS REPORT #20221126

NOV. 26, 2022



**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 as of Nov. 26, 2022.**

## Bleaching Alert

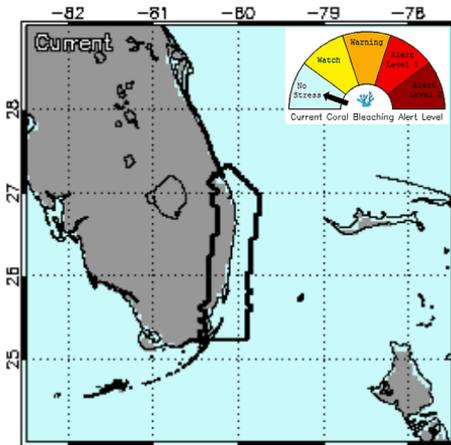


Figure 1. NOAA Coral Reef Watch Bleaching Alert Area for 11/26/2022

## Hot Spot

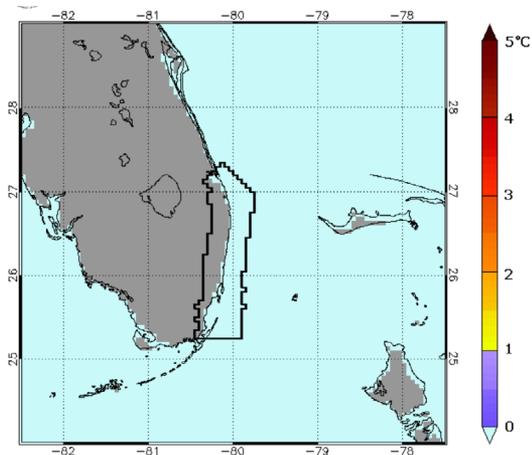


Figure 2. NOAA Coral Reef Watch Hot Spots for 11/26/2022

## Degree Heating Week

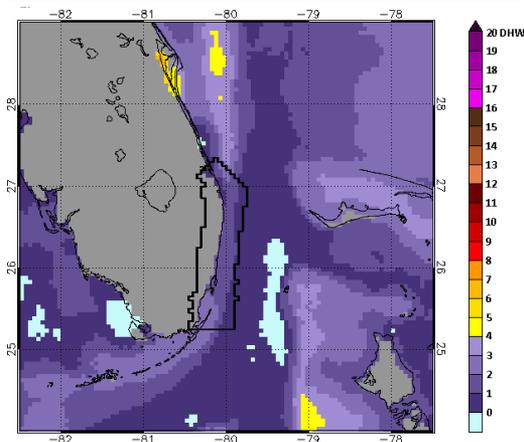


Figure 3. NOAA Coral Reef Watch Degree Heating Weeks for 11/26/2022

## Virtual Station Data

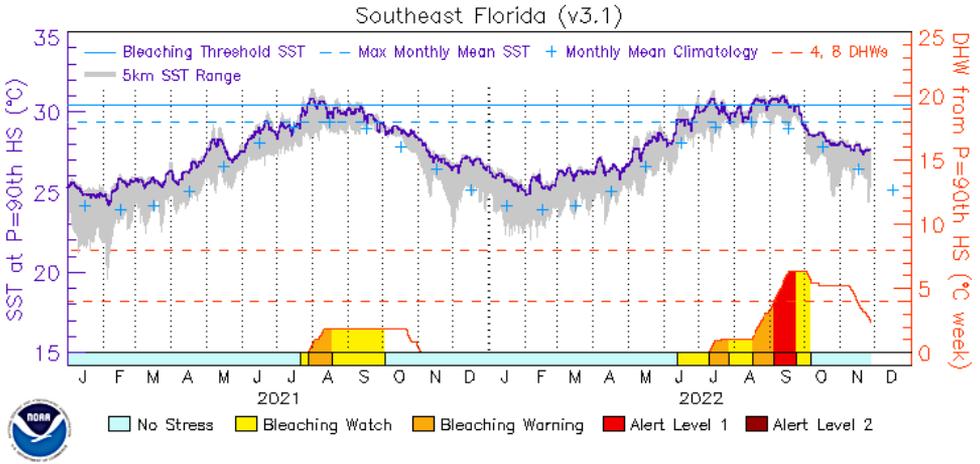
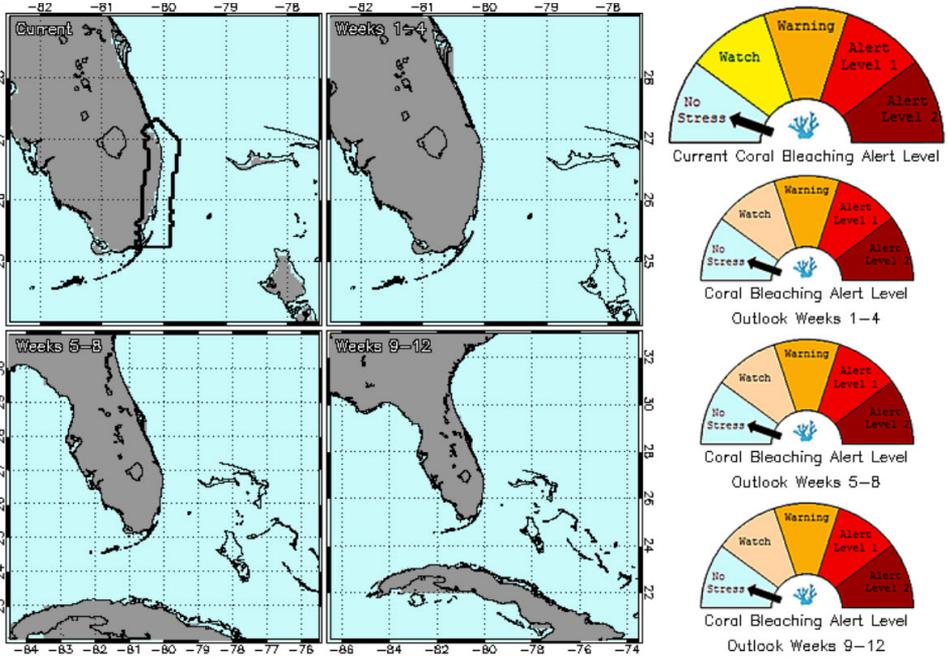


Figure 4. NOAA Coral Reef Watch Virtual Station Data  
1/1/2021 – 11/26/2022

## ENVIRONMENTAL MONITORING

Climate predictions for this current conditions report are based on the National Oceanic and Atmospheric Administration's Coral Reef Watch (CRW) satellite imagery, which summarizes sea surface temperature (SST) data and provides an indication as to when conditions are favorable for coral bleaching. **The current CRW Daily 5km Satellite Coral Bleaching Alert Area product indicates that heat stress in Southeast Florida has dissipated and is now at No Stress, indicating there is no longer a threat of mass bleaching this season for the region (Figure 1).**

- NOAA CRW's daily global 5km satellite Coral Bleaching Hot Spot map (**Figure 2**) compares the current SST to the maximum monthly mean (MMM) SST climatology. Corals start to experience cumulative heat stress when the SST is  $1^{\circ}\text{C}$  greater than the MMM climatology. **Currently, the SST for Southeast Florida remains below the  $1^{\circ}\text{C}$  Hot Spot bleaching threshold.**
- Coral bleaching risk increases if the temperature stays elevated for an extended period of time. NOAA CRW's daily global 5km satellite Degree Heating Week (DHW) map (**Figure 3**) shows the accumulation of heat stress (measured by daily Hot Spots of  $1^{\circ}\text{C}$  or greater) over the previous 84 days (12 weeks). One DHW is equivalent to one week of the SST at  $1^{\circ}\text{C}$  greater than the climatology. **The heat stress depicted on this map accumulated during the early portion of the past 12 weeks; there has been no new accumulation of Hot Spots across the Southeast Florida region.**
- NOAA CRW's daily 5km Satellite Regional Virtual Station for Southeast Florida indicates that **SST in the region is below the climatology for detecting bleaching heat stress (Figure 4).**



**Figure 5. NOAA CRW Southeast Florida Satellite 60% Probability Coral Bleaching Outlook Areas for Nov. 26, 2022, through Feb. 18, 2023**

SSTs have continued to decrease with the arrival of autumn. As of Nov. 26, 2022, the **Southeast Florida Satellite Coral Bleaching Alert Area and Outlook for the next four to 12 weeks predicts the region will remain at No Stress (Figure 5) during its winter season.**

This conditions report will be the final current conditions report for the 2022 Southeast Florida BleachWatch season; new reports will resume when the 2023 warm season starts. The Florida Department of Environmental Protection's Coral Reef Conservation Program will continue to monitor NOAA's HotSpot, DHW and Bleaching Alert Area maps as well as its Regional Virtual Station data throughout the year.





# OBSERVER NETWORK

The Southeast Florida Action Network (SEAFAN) BleachWatch Program has received 11 reports since Oct. 18, 2022. All 11 reports indicated coral colonies were exhibiting signs of paling, partial bleaching or full bleaching. Geographically, there was one report from Broward County, five reports from Palm Beach County and five reports from Miami-Dade County.

At those sites where paling/partial bleaching/full bleaching was observed, the overall percentage of coral exhibiting signs of thermal stress was 11% to 100%. It was observed on branching, fleshy, leaf, plate, sheet, mound, boulder and soft corals. There were also observations of bleached *Palythoa spp.* and fire coral.

Out of the 11 reports received since mid-October, there were two noting observations of coral disease. One report was from Palm Beach County and the other from Broward County. Both reports indicated that tissue loss was observed on encrusting/mound/boulder corals. At those sites where tissue loss disease was observed, the overall percentage of corals exhibiting signs of disease was 1% to 30%. There were no reports of black band, growth anomalies or other unknown diseases within Martin, Palm Beach, Broward and Miami-Dade counties.

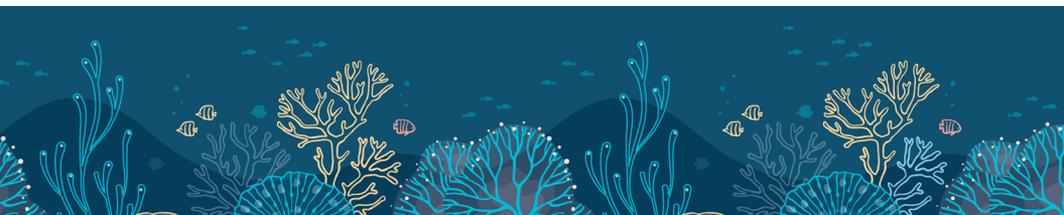
The 2022 Southeast Florida BleachWatch season has officially concluded with a total of 65 reports submitted by BleachWatch observers and researchers. Observer reports verified that through July to early September, moderate bleaching was observed with most reports citing paling and partial bleaching. From September to October, there were high levels of severe bleaching across the Southeast Florida region.

From October to November, the severity of bleaching decreased with more observations noting paling and partial bleaching rather than full bleaching. This indicates that corals may be regaining their symbiotic algae slowly as they recover from this summer's bleaching event.

The Florida Department of Environmental Protection's Coral Reef Conservation Program will continue to monitor the bleaching and resilience status of the reef throughout the year.

For information about NOAA satellite heat stress products, please visit [NOAA Coral Reef Watch](https://www.noaa.gov/coral-reef-watch) or email [CoralReefWatch@NOAA.gov](mailto:CoralReefWatch@NOAA.gov). For information about [SEAFAN BleachWatch](https://www.seafan.org), please contact the Reef Resilience Coordinator at 561-681-6631 or email [Coral@FloridaDEP.gov](mailto:Coral@FloridaDEP.gov).

Thank you BleachWatch observers for a great 2022 season!



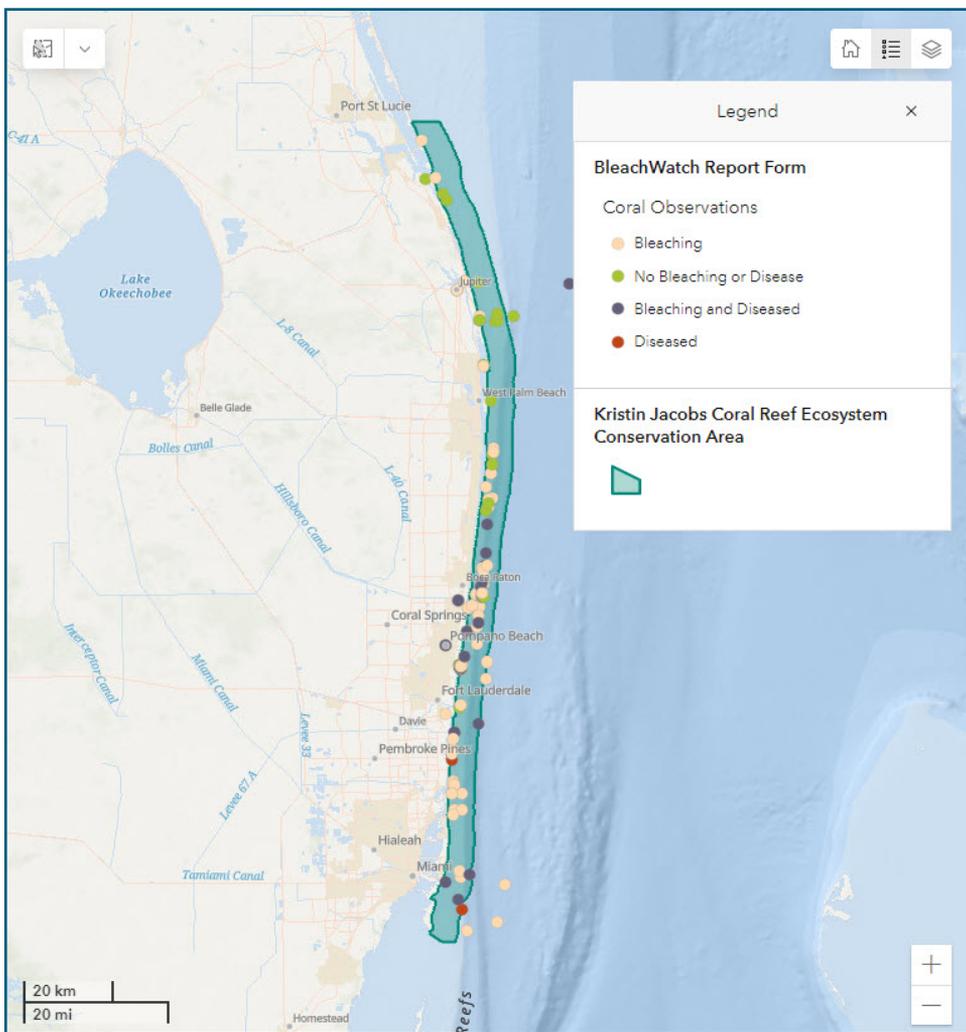


Figure 6. Distribution of coral bleaching and disease reports in the Kristin Jacobs Coral Reef Ecosystem Conservation Area (Coral ECA). View report submissions on the [BleachWatch Dashboard](#).

## Program Partners

