



SEAFAN BleachWatch Program

CURRENT CONDITIONS REPORT #20251125

OCTOBER/NOVEMBER, 2025



Summary: Based on climate predictions, current conditions and field observations, the risk of thermal stress that causes coral bleaching in the Kristin Jacobs Coral Aquatic Preserve from Miami-Dade to Martin counties is **LOW**.

ENVIRONMENTAL MONITORING

Once a year, based on cues from the lunar cycle and water temperature, stony coral colonies reproduce by simultaneously releasing gametes into the ocean. This phenomenon, called coral spawning, is crucial for the survival and genetic diversity of coral reefs, according to the National and Oceanic Atmospheric Administration (NOAA). Since the timing of spawning events in the wild can be unpredictable, scientists in Florida are working to replicate lunar and temperature cues in land-based coral restoration facilities to induce coral spawning in a controlled environment. This method facilitates the large-scale production of coral larvae needed for restoration and exceeds the quantities that can be collected from wild spawning events.

During the 2025 spawning season, coordinated coral reproduction was conducted across Florida institutions, including [The Florida Aquarium](#), [The Reef Institute](#), [Mote Marine Laboratory's International Coral Gene Bank](#), the [University of Miami](#), [Nova Southeastern University](#) and Florida's Coral Rescue Center.

Successful Spawning/Dribbling¹ Across the State in August 2025:

Coral Species	Florida's Coral Rescue Center	The Florida Aquarium	Mote's International Coral Gene Bank	Nova Southeastern University
Symmetrical brain coral (<i>Pseudodiploria strigosa</i>)	Dribbled	Spawned	Spawned	Dribbled
Boulder brain coral (<i>Colpophyllia natans</i>)	Dribbled	Spawned	Spawned	
Grooved brain coral (<i>Diploria labyrinthiformis</i>)				Spawned
Knobby brain coral (<i>Pseudodiploria clivosa</i>)	Dribbled			
Mountainous star coral (<i>Orbicella faveolata</i>)	Spawned			
Great star coral (<i>Montastraea cavernosa</i>)	Spawned			Spawned
Boulder star coral (<i>Orbicella franksi</i>)	Spawned			
Smooth flower coral (<i>Eusmilia fastigiata</i>)	Spawned		Spawned	
Pillar coral (<i>Dendrogyra cylindrus</i>)		Spawned		

¹“Dribbling” or “dribbled” refers to the slow, continuous release of gametes over a prolonged period rather than all at once in a single spawning event.

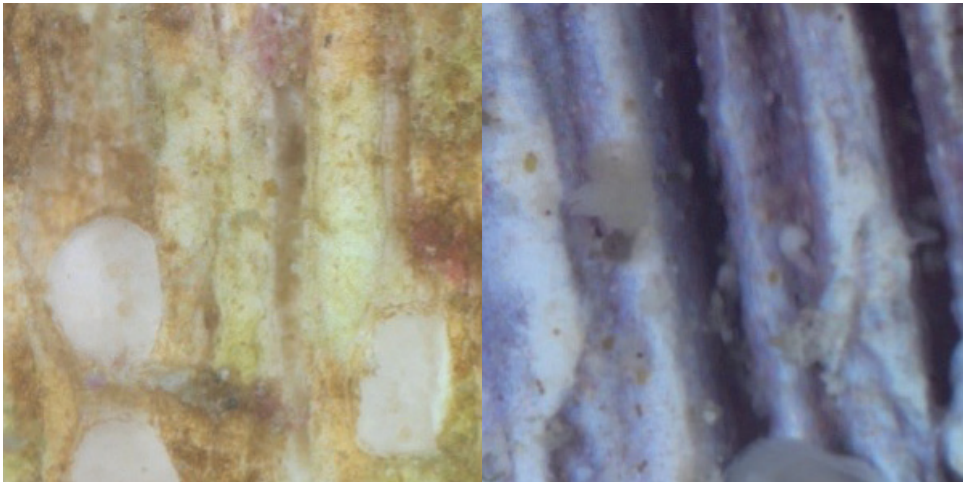




Because spawning naturally occurs in the middle of the night due to lunar cues, several Florida facilities are working to optimize spawning by adjusting lighting schedules to shift natural cues and help synchronize spawning outside natural cycles. With increasing success, institutions are partnering to transfer coral larvae across the state to various facilities. Working together and receiving larvae from multiple sources is critical for forming varied genetic combinations. As NOAA notes, "more genetic diversity means there's a better chance that at least some of the new corals have gene combinations that will help them survive extreme temperatures or diseases."

Once spawning and larval transfers are complete, the next step is settlement and early grow-out. In this step, coral larvae are settled onto substrates to grow into new coral colonies at the very slow rate of about 0.4 inches per year. At Florida land-based coral nurseries, settlement rates showed moderate to high success depending on species and facility. The Florida Aquarium reported 50–60% settlement, and Mote Marine Laboratory's International Coral Gene Bank recorded successful symmetrical brain coral settlement. The University of Miami reported successful settlement, and Nova Southeastern University recorded 51.1% settlement for mountainous star coral and 46.6% for boulder brain coral, along with a smaller number of great star coral recruits. The Reef Institute also reported successful settlement from larvae provided by Florida's Coral Rescue Center and The Florida Aquarium. Continued coordination and post-settlement monitoring will be essential to sustaining success in future spawning seasons.

Figure 1. Coral settlement of boulder and brain corals at Nova Southeastern University following larval donations from The Florida Aquarium and Florida's Coral Rescue Center. (Photo credit: Nova Southeastern University)



References

NOAA. What is Coral Spawning? *National Ocean Service website*, <https://oceanservice.noaa.gov/facts/coral-spawning.html>, accessed on Oct. 2, 2025.



OBSERVER NETWORK

BleachWatch received 15 reports between Sept. 3 and Oct. 28, 2025. All reports indicated coral colonies were exhibiting signs of paling, partial bleaching or full bleaching. Reports came from Palm Beach County (2), Broward County (12) and Miami-Dade County (1).

At those sites in the [Kristin Jacobs Coral Aquatic Preserve](#) where bleaching was observed, the overall percentage of coral exhibiting signs of thermal stress ranged from 1-100%. Signs of bleaching were observed on colonies representing most coral morphology types: brain, branching, flowering/cup, leaf/plate/sheet and mound/boulder.

One report also noted an observation of coral disease in Palm Beach County. At this site, the overall percentage of affected coral ranged from 1-10%, and the condition observed was tissue loss on a mound/boulder coral colony.

The [Southeast Florida Action Network](#) (SEAFAN) encourages the BleachWatch Observer Network to [submit reports](#) on coral bleaching and disease after every dive on the reef, including reports of “No Bleaching” and “No Disease.” Frequent observer reports, even of no bleaching, are critical for tracking conditions on the reef.

For information about NOAA satellite heat stress products, please visit [NOAA Coral Reef Watch](#) or email CoralReefWatch@NOAA.gov. For information about [SEAFAN BleachWatch](#), please email Coral@FloridaDEP.gov.

Figure 2. BleachWatch Observer, Rick Goldman, observed signs of coral bleaching on a staghorn colony in Broward County.



Offer your feedback on the BleachWatch Program through [this survey](#).

[Learn more about the current conditions on coral reefs in the Florida Keys.](#)

Program Partners



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