

SEAFAN BleachWatch Program

CURRENT CONDITIONS REPORT #20250919
AUGUST/SEPTEMBER, 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 HIGH.

ENVIRONMENTAL MONITORING

Since 2014, Stony Coral Tissue Loss Disease (SCTLD) has impacted Florida's Coral Reef. Researchers from Florida Atlantic University's Harbor Branch Oceanographic Institute have continued and expanded their long-term coral health monitoring efforts in the northern section of the Kristin Jacobs Coral Aquatic Preserve. They have tracked the progression of SCTLD, analyzed coral population genetics, evaluated the effects of

salinity stress and monitored coral transplant success at St. Lucie Inlet Preserve State Park.

Major findings include:

1. Low SCTLD prevalence in Martin, Palm Beach and Broward counties from June 2024-May 2025 (Figure 1).

- 2. Four cryptic genetic lineages of blushing star coral (*Stephanocoenia intersepta*) were identified throughout Florida, highlighting the need to continue accumulating coral population genetics and connectivity data to support restoration planning.
- 3. Low salinity stress (25 Practical Salinity Unit), often from freshwater discharges, significantly reduced coral healing capacity, underscoring the importance of properly managing freshwater inputs and timing coral outplanting to avoid low-salinity periods.

4. High transplant survival was observed at St. Lucie
Reef, with 89% of corals from the Osborne Tire Reef
surviving after one year and for two species, larger colonies had significantly greater
survival probability.

Figure 1. Mean SCTLD prevalence ±SD from roving diver surveys across survey year within each survey region from 2017 to 2025.

This study highlights the importance of monitoring disease-susceptible coral species and environmental stressors to support adaptive restoration strategies. Combining disease tracking, genetic research and environmental data contributes to understanding and mitigating coral reef decline in Southeast Florida. The findings





inform ongoing and future coral disease response efforts, guide management actions and support species stock enhancement to preserve biodiversity in restoration efforts.

Reference: Voss JD, Carreiro A, Pantoni G, Eckert R, Nesic M. 2025. Advancing coral reef research and resilience in southeast Florida: Phase 5. Florida DEP Coral Protection and Restoration Program. Miami, FL. Pp. 1-44.

OBSERVER NETWORK

BleachWatch received 40 reports between Jun. 25 and Sept. 3, 2025. 34 reports indicated coral colonies were exhibiting signs of paling, partial bleaching or full bleaching. Reports came from Palm Beach County (6), Broward County (19) and Miami-Dade County (9). Six reports from Monroe County were referred to Mote Marine Laboratory's Florida Keys BleachWatch Program.

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 all coral morphology types: brain, branching, fleshy, flowering/cup, leaf/plate/sheet and mound/boulder.

Six reports also noted observations of coral disease in Palm Beach, Broward and Miami-Dade counties. At those sites, the overall percentage of affected coral ranged from 1%-10%. Observed conditions included tissue loss and predation on colonies of mound/boulder and branching corals.

The next Current Conditions Report will be issued in October. SEAFAN encourages the BleachWatch Observer Network to <u>submit reports</u> 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 <u>NOAA</u> <u>Coral Reef Watch</u> or email <u>CoralReefWatch@NOAA.gov</u>. For information about <u>SEAFAN BleachWatch</u>, please email <u>Coral@FloridaDEP.gov</u>.









Figure 2. BleachWatch Observer, Jenny Wuenschel, observed signs of coral bleaching on brain coral colonies in Broward County.

Offer your feedback on the BleachWatch Program through our survey.

Learn more about the current conditions on coral reefs in the Florida Keys.

Program Partners











