



Southeast  
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# Winter 2017 Newsletter

## **Coral Reef Conservation Program Partners with Friends of Our Florida Reefs and Sea Experience to Offer First-Ever SEAFAN BleachWatch Field Course**

Ana Zangroniz, *CRCP Awareness & Appreciation Coordinator*

This fall, following several months of development, the Florida Department of Environmental Protection's Coral Reef Conservation Program (CRCP) presented its first-ever Southeast Florida Action Network (SEAFAN) BleachWatch course with an added field component. The information presented in the traditional classroom course was applied through in-water training, providing SCUBA divers the opportunity to become familiar in recognizing coral bleaching and disease, and to practice BleachWatch surveys on the reef.

First developed for the Great Barrier Reef, the BleachWatch program was adopted in the Florida Keys in 2002. In 2013, the SEAFAN BleachWatch program was implemented in the northern portion of the Florida Reef Tract by CRCP in order to create an early warning network to better understand coral bleaching events.

The BleachWatch classroom training consists of a lecture on coral biology, coral bleaching and disease, and how to assess coral condition, record observations and submit reports. The in-water training consists of approximately two hours of practical application and hands-on learning. The opportunity for classroom training, coupled with the in-water training, increases the accuracy of reports, encourages participation and expands the BleachWatch program.

To help provide this practical experience, CRCP joined Friends of Our Florida Reefs (FOFR) and dive charter Sea Experience of Fort Lauderdale to secure the field support for the course. CRCP and FOFR will continue to engage members of the community through SEAFAN BleachWatch and other future opportunities.

Recreational, commercial and scientific divers are encouraged to become part of the BleachWatch Observer Network by participating in a training session. Future SEAFAN BleachWatch field courses are tentatively planned for the spring and summer of 2017. To sign up, contact Kristi Kerrigan at 305-795-1204 or [Kristi.Kerrigan@dep.state.fl.us](mailto:Kristi.Kerrigan@dep.state.fl.us). For more information on BleachWatch or to file a report, visit [www.SEAFAN.net](http://www.SEAFAN.net).

## **6<sup>th</sup> Annual Southeast Florida Reef Cleanup**

Kristi Kerrigan, *CRCP Reef Resilience Coordinator*

Over the summer, CRCP hosted its sixth annual Southeast Florida Reef Cleanup. Every year, this event gives SCUBA divers the opportunity to help keep Florida coral reefs healthy and beautiful by removing trash and debris from the reefs. This four-county cleanup effort is conducted through the Marine Debris Reporting and Removal Program, part of a larger SEFCRI project. During these events, CRCP partners with local dive businesses to organize dedicated reef cleanup dive trips where local divers collect submerged marine debris and document their findings.

Between July and August, cleanups were organized on separate weekends for Miami-Dade, Broward, Palm Beach and Martin counties in conjunction with the 9<sup>th</sup> Annual Treasure Coast Waterway Cleanup. A total of 214 participants from 11 dive businesses helped to remove 366 pounds of debris from Miami-Dade, Broward and Palm Beach counties.\* Of the total debris removed, 44 percent was categorized as



*Figure 1. Debris collected from DECO Divers of Miami-Dade County. Photo: Kristi Kerrigan, CRCP.*

trash (e.g. bottles, cans, wrappers, plastic bags, etc.), 38 percent as fishing debris (e.g. monofilament fishing line, leaders, lures, spear tips), 10 percent as household debris (e.g. plastic chairs, clothing, flashlights, etc.), 6 percent as boating debris (e.g. lines, boat parts) and 3 percent as diving debris (e.g. snorkels, masks, weight belts). Some of the most unusual items collected included: a lantern, hubcap and a Thomas the Tank Engine figurine. Many participants noted monofilament fishing debris impacting corals, sponges and gorgonians on their data sheets.

Results of these cleanups are important to understand the distribution and impacts associated with submerged trash in the region. The data is also sent to Professional Association of Diving

Instructors' (PADI) Project Aware to assist in the global effort against marine debris. The annual Southeast Florida Reef Cleanup provides divers with the opportunity to locally support coral reef conservation while battling a global environmental problem. For more information about the Marine Debris Program, visit [www.SEAFFAN.net](http://www.SEAFFAN.net).



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\*Results of Treasure Coast Waterway Cleanup in Martin County are TBD. Please email [Kristi.kerrigan@dep.state.fl.us](mailto:Kristi.kerrigan@dep.state.fl.us) for information on acquiring these results.



Figure 2. Diver collecting debris off the reef in Broward County.  
Photo: Laura Kloetzer.



Figure 3. Post-cleanup group shot of Divers Paradise.  
Photo: Kristi Kerrigan, CRCP.



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## 2016 SEAFAN Coral Disease and Coral Bleaching Observations

Kelly Montenero, *NOAA Coral Management Fellow*  
Kristi Kerrigan, *CRCP Reef Resilience Coordinator*

Due to extreme sea temperatures in recent years, coral reefs worldwide have experienced a high amount of environmental stress, leaving them highly susceptible to disease and bleaching. Launched in 2012, the SEAFAN Bleachwatch program helps to detect and monitor coral disease and bleaching events in Southeast Florida and improve scientific understanding by training divers to properly assess coral conditions, record observations and submit reports to the network.

This year, SEAFAN received a total of 139 marine incident reports from citizen scientists, county and state environmental agencies, academics and non-governmental groups. A total of 63 of the submissions included reports of marine debris, algal blooms, anchor damage, discolored water, fish disease and invasive species. The remaining 76 reports noted observations of coral disease related to the recent outbreak in Southeast Florida. Although the causes of this disease outbreak are unknown, CRCP continues to rely on members of the community to submit reports of coral disease through citizen science. SEAFAN received the most reports of coral disease in Broward County (39), followed by Miami-Dade and Palm Beach County with 26 and 11 reports, respectively.

While the first coral disease report of 2016 was received in February, the month of September had the highest number of reports (33). After Hurricane Matthew hit in early October, wind and sea conditions were extreme for the rest of the month, which prevented many entities from boating and diving. Water temperatures significantly cooled following Hurricane Matthew, and SEAFAN only received seven reports during October and November combined. Since the start of the disease outbreak in 2014 in Miami-Dade County, coral disease has continued to spread north to Broward and Palm Beach Counties throughout 2015. This year, the outbreak has been spreading south throughout the Florida Keys. Coordination among many different stakeholders and agencies is currently underway to monitor and respond to this unprecedented outbreak.

In addition to the 139 marine incident reports submitted to SEAFAN, an additional 72 reports of coral bleaching were submitted through the online SEAFAN BleachWatch portal. These reports included observations of both coral bleaching as well as no bleaching. Water temperatures are an important parameter related to coral bleaching that observers are asked to record. The warmest temperature reported was in September in Broward County, with an 89-degree temperature at 43-foot depth. During this month, more reports noted observations of partially bleached and even fully bleached corals from Miami-Dade to Palm Beach counties.. At some sites in Broward County, observers noted bleaching affecting 51-75 percent of overall coral cover. Observers are encouraged to submit reports throughout the winter season in order to follow the coral recovery period.

SEAFAN and BleachWatch continue to share information on coral health collected from reef users to management agencies in southeast Florida. To file a report, access the network at [www.SEAFAN.net](http://www.SEAFAN.net).

Interested in becoming a part of the network? Contact [kelly.montenero@dep.state.fl.us](mailto:kelly.montenero@dep.state.fl.us) to schedule a presentation about SEAFAN or contact [kristi.kerrigan@dep.state.fl.us](mailto:kristi.kerrigan@dep.state.fl.us) to schedule a BleachWatch training for your group.



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## **Coral Reef Conservation Program Holds First-Ever Research and Academic Learning Exchange**

Meghan Balling, *Fishing, Diving & Other Uses Coordinator*

DEP's Coral Reef Conservation Program hosted its first-ever Research and Academic Learning Exchange at Anne Kolb Nature Center in Broward County on Jan. 26, 2017. Eleven presenters representing local academic institutions, non-governmental organizations and a private environmental consulting firm gathered to report current research efforts along the extent of the Florida Reef Tract. Presenters shared information pertaining to coral reef gardening efforts, reef resilience, coastal and spatial mapping and mosaics, coral immunity, fish spawning aggregations, ocean acidification among others. In addition to established researchers at various institutions, graduate students were invited to present research related to their academic degrees. Subsequent Q&A sessions enabled productive and thought-provoking conversations for all participants.

This meeting provided a forum for communication exchange among universities and partner organizations. The event improved communication and understanding of current management-related research efforts as they relate to Florida's coral reef ecosystem. The relationships created and fostered through this meeting will pave the way for more effective partnerships, and ultimately holistic management of the Florida Reef Tract moving into the 21<sup>st</sup> century.