Press Release

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**FLORIDA REEF RESILIENCE PROGRAM
IS FOCUSED ON UNUSUALLY EXTREME WATER TEMPERATURES
AND MONITORING CORAL BLEACHING**

(Key West, Florida – July 21, 2023) – Unusually extreme seawater temperatures are being recorded in South Florida and Florida's Coral Reef is already beginning to show signs of a large-scale coral bleaching event. The Florida Reef Resilience Program (FRRP), a collaborative effort among public agency reef managers, scientists, conservation organizations and reef users is focused on this event. FRRP's mission is to develop strategies for mitigating climate change and other stressors that decrease the Reef's resilience, or ability to recover from disturbance. The last significant bleaching event in Florida occurred in 2014 and 2015, and subsequent declines in coral cover due to stony coral tissue loss disease (SCTLD) and other disturbances could make this year particularly impactful to the reefs.

Corals often respond to stress by expelling the colorful algae that live within their otherwise clear tissues. This phenomenon is called "coral bleaching" because it reveals the stark white coral skeleton. Corals can survive bleaching if water temperatures return to a normal range quickly enough, but the algae they release provide most of their food so prolonged bleaching can cause them to starve. In addition, bleaching weakens corals and depletes their fat reserves, which can make them more susceptible to diseases, like SCTLD, and make it harder for them to recover from injuries.

The FRRP Disturbance Response Monitoring (DRM) program, led by Florida Fish and Wildlife Conservation Commission and contributed to by agency and academic partners, was created in 2005 to check the condition of shallow water reefs from Dry Tortugas National Park to Martin County during the annual period of peak heat stress in the fall. If warranted, follow-up surveys conducted three to four months after a bleaching event will help reef managers understand the impacts of severe bleaching by providing data on whether corals recovered or perished as a result of the event.

"This heat event is an acute reminder for the need to keep our ecosystem healthy so it can withstand recurrent stressors," said Florida Keys National Marine Sanctuary (FKNMS) Superintendent Sarah Fangman. "Our soon-to-be-released Restoration Blueprint has been designed with this goal in mind."

Coral bleaching is a major contributor to the decline of reefs worldwide. Monitoring helps identify reefs, or even colonies, that may be more tolerant of the elevated temperatures. This information can be used to target restoration in resilient areas, attempt to replicate ecological conditions through

restoration, and incorporate any potentially resilient genetics into our restoration portfolios. The more live coral reef that is lost, the less habitat is left for fish, spiny lobster and other marine life. Healthy reefs are also critical for protecting coastal cities, like Miami, by dissipating wave energy before it reaches the shoreline, helping to reduce flooding risk.

Now more important than ever, resource managers are expanding the collaborative multi-faceted response to SCTLD to include disturbances like extreme bleaching events to facilitate the recovery of Florida's Coral Reef into a resilient, self-sustaining ecosystem. Essential to the success of this effort is building the infrastructure and capacity for propagating disease-resistant and thermally tolerant corals to ensure the future of Florida's Coral Reef.

What can you do to help Florida's Coral Reef during this particularly stressful time? Join a citizen science program such as BleachWatch and collect information on bleaching corals for reef managers and scientists to help make management decisions. Minimize any additional stress to the reefs by wearing sun protective clothing instead of sunscreen, avoiding anchoring near live habitat, keeping hands, feet and fins away from corals, avoiding the use of herbicides and fertilizers during the rainy season as they are carried to the reef as polluted runoff, and supporting measures to reduce the emissions of CO_2 into the atmosphere to mitigate climate change.

Click the links for more information about FRRP and Disturbance Response Monitoring. To report observations of bleaching in the Florida Keys, visit Mote's BleachWatch site, and in Southeast Florida visit the SEAFAN BleachWatch site.

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For press kit with photos and videos for use with this FRRP story click here.