

MEMORANDUM



To: Florida Fish and Wildlife Conservation Commissioners

From: Gil McRae, Director, Fish and Wildlife Research Institute
Jessica McCawley, Director, Marine Fisheries Management

Date: June 20, 2018

Subject: Staff Report – Coral Reefs

Purpose:

A review and discussion of topics related to Florida's coral reefs. The review will include information on the status of coral reefs, response to the current disease event, an update on efforts to restore coral reefs, and an overview of management actions in place by FWC and our partners to protect and conserve coral reefs.

Summary:

Florida has extensive and widespread coral habitats, which range from the Dry Tortugas National Park to Martin County and up the Gulf coast of Florida. These extremely diverse habitats provide shelter, food, and breeding sites for a wide variety of commercially and recreationally important organisms. Multiple State and federal agencies manage coral reefs in Florida.

FWC has monitored the conditions of coral reef and hardbottom habitats annually throughout the Florida Keys since 1996, southeast Florida since 2003, and the Dry Tortugas since 2004. Data collected during this period show a continued loss of stony coral and an increase in soft corals in the Florida Keys. Stony corals, such as elkhorn and staghorn coral are among the most important reef building species. Coral reefs north of Biscayne Bay have been monitored by DEP and partners since 2002. Stony coral densities on these northern reefs remained low at around 3% but have declined recently due to the disease event. Major events, including bleaching, hurricanes, cold spells, and the current disease outbreak, have contributed these decreases in density and size of corals, and a shift from stony to soft corals. An unidentified disease began in 2014 in Miami-Dade County, initially spread north through Broward, Palm Beach and Martin Counties and then moved south of Miami into the Upper and Middle Keys. The disease has been confirmed to affect more than 20 species of stony corals (there are ~45 coral species in Florida) and inflicts varying levels of loss, with the most susceptible coral species suffering complete mortality. FWC and a multidisciplinary team of experts have been responding to this event.

Given the highly stressed condition of Florida's coral reefs, restoration has become a focal point for management. The central goal is to restore the structure and function of this degraded ecosystem. In addition to the FWC, many partners have been rearing and then outplanting several species of corals onto reefs for nearly a decade. This effort is continuously being improved through refinement of rearing and outplanting techniques, research, and monitoring. In parallel, similar restoration efforts are occurring to enhance the recovery of long-spined sea urchins, a critical reef animal, are ongoing.

Staff Recommendation:

This presentation is informational in nature. Staff welcome input from the Commission on existing coral programs and priorities.

Staff Contact and/or Presenter:

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