First Technical Session on Stony Coral Tissue Loss Disease held at GCFI72, Punta Cana

[By E. Doyle, GCFI] December 3, 2019. ***Responding to the need to share information regionally about the emerging issue of stony coral tissue loss disease, the 72nd conference of the Gulf and Caribbean Fisheries Institute (GCFI) included a dedicated technical session on coral disease.***

The session opened with a presentation by Melina González on the status of coral disease in the Dominican Republic. Based on 10 survey sites in five marine protected areas, Reef Check Dominican Republic encountered coral diseases such as white plague, black band disease, Caribbean ciliate infection and dark spots disease at an average prevalence of 13-15%. Findings of higher disease prevalence coincided with suspected cases of stony coral tissue loss disease, but confirmation of the disease will require return visits to check diagnostic field characteristics related to the rate of spread of lesions on the affected colonies and spread of the disease to nearby corals of susceptible species.

Session moderator Scot Frew of NOAA's Coral Reef Conservation Program explained: "Stony coral tissue loss disease spreads rapidly and causes high rates of mortality among some of the slowest-growing and longest-lived reef-building corals, including the iconic brain corals, star corals and pillar corals. It's impact on corals in the Florida Reef Tract has been devastating."

Advances in responding to stony coral tissue loss disease in Florida were presented by Nate Berkebile of the Florida Fish and Wildlife Commission. He described the multi-agency, multi-disciplinary Coral Rescue Team that is collecting healthy coral specimens to preserve representative portions of the genetic diversity of stony corals in captivity. This bio-banking effort has supported coral 'Reefugees' from Florida now stored across the USA in collaboration with the Association of Zoos and Aquariums, universities and NGOs. Nate described possible future approaches to the propagation and reintroduction of these corals to the wild.

Describing the spread of stony coral tissues loss disease from Florida to the Caribbean region, Emma Doyle of the Gulf and Caribbean Fisheries Institute noted that: "As of GCFI72, stony coral tissue loss disease has been documented in Jamaica, Mexico, Sint Maarten, the U.S. Virgin Islands, the Dominican Republic, the Turks and Caicos Islands, Belize and Sint Eustatius."

Emma presented information about the Caribbean Cooperation Team on stony coral tissue loss disease and its efforts to help tackle this threat to the region's highly diverse and economically valuable coral reef ecosystems. A regional initiative co-chaired by NOAA and the Atlantic and Gulf Rapid Reef Assessment (AGGRA) Program, the Caribbean Cooperation Team is promoting common monitoring protocols, providing technical assistance for disease identification, and

tracking the spread of the disease regionally. The team is also tracking the efficacy of intervention techniques and implementing capacity building efforts to share lessons learned from ongoing response efforts.

As a Caribbean coral reef manager needing new technical capacity and resources to address stony coral tissue loss disease, Tadzio Bervoets of the Dutch Caribbean Nature Alliance participated in capacity building efforts through the MPAConnect network (a partnership initiative of GCFI, NOAA and 32 Caribbean marine protected areas). An MPAConnect learning exchange held this year in Key West shared information among managers regionally for disease monitoring and identification, strategies for minimizing diver, fisher, and ship-borne dispersal of the presumed pathogen(s), best practice treatment protocols, and communications guidance. Working groups considered the feasibility of applying or adapting treatment protocols and approaches to coral rescue and restoration by Caribbean countries and territories. Follow-up activities saw the development of outreach materials for managers and dive operators in English, Spanish and French, and the preparation of a monitoring and response plan template for stony coral tissues loss disease. In conjunction with the Caribbean Cooperation Team, the participants continue to network and share lessons learned.

The GCFI72 coral disease abstracts can be found at https://www.gcfi.org/gcfi-72-conference/ For more information please contact mpaconnect@gcfi.org.

Stony coral tissue loss disease at Looe Key, Florida (Photo: E. Doyle)

About the Gulf and Caribbean Fisheries Institute (GCFI): When the Gulf and Caribbean Fisheries Institute was founded in 1947, the riches in our seas appeared limitless. Originally GCFI helped develop new ways to exploit the region's marine resources and to develop new fisheries based upon this perception of an inexhaustible sea. However, it wasn't long until the degradation of marine resources and threats to regional fisheries were documented. GCFI now works to advance the goals of sustainable use, wise management, conservation, and restoration of fisheries in the region. GCFI provides a platform for the exchange of information and perspectives among decision-makers, scientists, managers, educators, resource users, and students. For more information please visit www.gcfi.org