

# Multi-species Coral Rescue in Response to the Stony Coral Tissue Loss Disease on the Florida Reef Tract

## Rescate de Coral de Especies Múltiples en Respuesta a la Enfermedad de Pérdida de Tejido de Coral Pedregoso en el Tracto de Arrecife de Florida

## Sauvetage de Coraux Multi-espèces en Réponse à la Maladie de Perte de Tissu Corallien Pierreux sur le Tractus de Récif de Floride

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### EXTENDED ABSTRACT

**The Florida Reef Tract (FRT) is experiencing an unprecedented disease outbreak described as Stony Coral Tissue Loss Disease (SCTLD).** First reported near Miami in 2014, SCTLD is an infectious, waterborne disease that has high rates of disease transmission and mortality and has since spread to the northernmost extent of the FRT in Martin County and southwestward through the lower Florida Keys, currently occurring west of the Marquesas. The spread of this disease has resulted in the mortality of thousands of colonies from >20 coral species, including primary reef builders and species listed under the Endangered Species Act. Efforts to identify the pathogen(s) of SCTLD, determine the mode(s) of transmission, and develop potential intervention techniques are currently underway, but our limited understanding of SCTLD greatly impedes management efforts to control the spread of this virulent disease.

A multi-agency, multi-disciplinary Coral Rescue Team (CRT) was developed to:

- i) Design and implement a reef-tract wide coral collection plan for SCTLD-susceptible species,
- ii) Preserve representative portions of the remaining genetic diversity of FRT corals in captivity, and
- iii) Plan for future propagation, restoration and reintroduction of such corals to the wild.

The CRT has determined priority target species for rescue, based off how susceptible a species is to SCTLD and how rare that species is within the FRT. The CRT has initiated pilot coral collections through day trips, using a dive charter, and coral rescue cruises aboard an 88 ft vessel, which is equipped with the top-side space necessary to process, sample and mount collected corals. The CRT has also developed coral care plans and started delivery of rescued corals to Florida-based non-governmental organizations and universities as well as long-term housing facilities from the Association of Zoos and Aquariums outside Florida. To date, 1,580 corals have been rescued from disease-free areas, including patch reefs and the fore reef. Many of these corals, housed at multiple facilities, have spawned and recruits have been collected. The spawn from these collected corals will help preserve genetic diversity and will eventually be used for restoration efforts where the CRT can conduct long-term monitoring in areas from which SCTLD is not present anymore.

KEYWORDS: Coral, disease, SCTLD, rescue, aquariums