

U.S. Coral Reef Task Force Resolution 47.1

National Action for Coral Disease Outbreak Prevention, Rescue, and Recovery

Approved October 26, 2023

Issue Statement:

Disease is one of the most significant threats to tropical coral reefs globally, and coral disease outbreaks have been increasing in prevalence and severity over the last few decades. In particular, a multi-year outbreak of stony coral tissue loss disease (SCTLD) has caused extensive damage to Atlantic-Caribbean coral reef ecosystems and poses a potential risk to as-yet unaffected reefs in the Indo-Pacific. While coral disease occurs naturally in reef ecosystems, SCTLD is unprecedented in its high mortality rate, rapid spread, number of corals it affects, and ability to persist in the environment over multi-year periods. SCTLD is one of the most lethal coral disease outbreaks in modern history.

The U.S. Coral Reef Task Force has organized partners at the national level to advance coordination of SCTLD response, prevention, and preparedness efforts via the Coral Disease Working Group and its sub-teams. This resolution commits USCRF members to enhance actions to ameliorate the wide ranging and severe impacts of the disease in the Atlantic-Caribbean region, prevent SCTLD transmission to the Pacific region, and create a framework for future preparedness and response to other disease outbreaks of significant impact.

Background:

SCTLD was first detected off of Florida's coast in 2014 and quickly spread north and south along Florida's Coral Reef. While disease prevalence is normal in coral populations at low background rates of ~2-3%, SCTLD may result in 66-95% prevalence, particularly among highly susceptible species. The disease is characterized by swift spread, rapid tissue loss, and high mortality rates within certain species. SCTLD has proven to be particularly damaging to multiple iconic and important reef-building species and can lead to whole-colony mortality in just a couple of months. As of July 2023, the disease has been reported in 28 countries and territories in the Atlantic-Caribbean region. Considered to be one of the most lethal coral disease outbreaks on record, the damage wrought by SCTLD has been unprecedented.

SCTLD has caused widespread devastation along reefs in the Atlantic-Caribbean, resulting in dramatic declines in coral cover, biodiversity, and the ability of reefs to function as healthy ecosystems. Certain species, like the Endangered Species Act-listed pillar coral, have experienced unrecoverable losses to the point of functional extinction in specific areas. While the full effects and secondary impacts of the disease are not yet known, it is clear that SCTLD will impair the ability of coral reefs to provide key ecosystem goods and services to the coastal communities and economies that depend on them, including protection of coastal areas from the impacts of severe storms and wave action. Coral communities are becoming increasingly homogeneous, which will likely increase their susceptibility to coral diseases and other stressors moving forward. Compounded with the impacts of SCTLD, climate change has precipitated a significant decline in reefs with rising temperatures and ocean acidification. While there is still ongoing research to evaluate climate change as an environmental co-factor for SCTLD susceptibility, correlations between climate change and other coral diseases have been established. Addressing climate change is a critical factor in our efforts to foster resilient coral reef ecosystems

In response to the threats posed by the disease, an extensive, global collaboration among governmental agency leaders, resource managers, scientists, nonprofits, universities, aquariums, and citizens has emerged. Florida was the first jurisdiction to stand up a semi-formal response to SCTLD, which boasts more than 80 partner organizations and over \$40 million in research, intervention, rescue, propagation, and restoration projects completed to date. In the U.S. Virgin Islands, partners joined together to collaboratively oversee response efforts (supporting nearly 29,500 coral interventions throughout the territory) and to advance rescue and restoration planning. The Government of Puerto Rico declared a State of Emergency along the island's reefs, leading to the development of the Puerto Rico SCTLD Emergency Response Strategic Plan, which is being implemented by a collaborative team of over 20 government and nongovernmental entities. In 2022, in recognition of the importance of regional collaboration on SCTLD, the jurisdictional governments of Puerto Rico and the U.S. Virgin Islands signed a joint letter in support of enhancing disease response efforts at the local, regional, and national levels.

SCTLD response, prevention, and preparedness efforts have also been prioritized at the national level. In 2020, the National Oceanic and Atmospheric Administration (NOAA) published a Strategy for Stony Coral Tissue Loss Disease Response and Prevention, which outlined a series of goals and objectives meant to guide NOAA's disease response, prevention, and preparedness efforts. One of the recommendations emanating from the Strategy (and from the U.S. All Islands Coral Reef Committee) was to hire a national coordinator to help provide increased leadership and coordination to the U.S. national response to SCTLD. A national coordinator was brought onboard in 2021 through a partnership position with Florida Sea Grant and NOAA's Coral Program and in 2022, NOAA published an Implementation Plan for its SCTLD Strategy. The Implementation Plan lays out a detailed, consensus-based course of action for SCTLD response, prevention, and preparedness, building on the goals and priorities identified in NOAA's Strategy.

The USCRTF also took action, forming the Coral Disease Working Group in 2021. The Working Group supports local response, mitigation, and prevention efforts, and enhances coordination among activities occurring at the national level via three sub-teams focused on disease transmission and building capacity for disease response in the Atlantic-Caribbean and preparedness in the Pacific. Complementing the role of the Coral Disease and Health Consortium, which facilitates collaboration among the scientific community, the group facilitates coordination between federal agencies and jurisdictions. In recognition of the need for concerted, interagency action at the national level, the Working Group developed priorities for national action, which formed the basis for this resolution. While the severity and persistence of the SCTLD outbreak was the impetus for this resolution, we recognize that many of the resolution's components are applicable to other past and potentially future coral diseases of significant impact.

Statement & Decisions:

The USCRTF recognizes the continued, severe threat posed by SCTLD and other significant coral disease outbreaks to the long-term health and vitality of America's coral reefs. The viability of coral reef ecosystems requires continued and enhanced response, prevention, and preparedness efforts. The two greatest priorities for interagency coordination and urgent action are: 1) preventing coral disease transmission, including the spread of SCTLD to unaffected U.S. coral reefs in the Pacific and, 2) augmenting disease-related coral rescue and restoration efforts aimed at recovering the community structure and ecological function of impacted reefs, particularly along SCTLD-affected reefs in the U.S. Atlantic-Caribbean.

- 1) To reduce the threat of coral disease transmission, including the transmission of SCTLD to as-yet unaffected reefs in the U.S. Pacific, the USCRTF commits to the following actions:

- Pursue policies and regulations at the jurisdictional and national levels to **reduce the threat of transmission**. Agencies will share technical expertise and collaboratively identify approaches to prevent disease transmission.
 - **Increase our understanding of the risk SCTLD poses to coral reefs in the U.S. Pacific** by supporting research aimed at; 1) tracking vessel activity between the Atlantic-Caribbean and Indo-Pacific, 2) understanding the susceptibility of Pacific corals to SCTLD, and 3) evaluating potential SCTLD vectors and transmission pathways.
 - Support the establishment of a **Pacific coral disease response and preparedness coordinator** to provide capacity for coordinated effort in the region to prepare for and respond to coral disease outbreaks of significant impact.
 - Develop and identify **emergency response fund programs** to support response efforts in areas newly affected by SCTLD and other significant coral diseases. Ensure these funds are accessible in the event of new coral disease outbreaks.
 - **Coordinate with relevant permitting agencies** to prepare for the potential need for coral disease intervention measures such as treatments and/or coral rescue and enable expedited action for significant coral disease outbreaks.
 - Enhance **engagement and collaboration at the international level** to share information pertaining to SCTLD and other significant coral diseases and to identify and implement strategies to prevent transmission.
 - Continue to **work with the shipping industry** to promote the implementation of ballast water and biofouling best management practices to reduce risk of disease transmission to unaffected regions, including SCTLD transmission to the Indo-Pacific.
- 2) To improve the community structure and ecological function of disease impacted-reefs, including those devastated by SCTLD in the U.S. Atlantic-Caribbean, the USCRTF commits to the following actions:
- Provide resources, personnel, and technical **support for coral rescue and recovery** on reefs that have been significantly impacted by SCLTD or other significant coral diseases. Agencies will focus efforts on increasing infrastructure to rescue and house corals and propagate offspring in the U.S. Caribbean and other impacted areas, developing beneficial public/private partnerships and providing logistical support for the transfer of rescued corals.
 - Increase capacity for regional coral rescue via the establishment of a **U.S. Caribbean regional coral rescue coordinator** and the development of a **regional coral rescue plan**. The coordinator will facilitate the development of a **coral rescue network** to enable interjurisdictional and international collaboration and address capacity gaps for coral rescue.

- Develop an **interagency framework for disease outbreaks of significant impact** to help fund response efforts for future outbreaks. Disease outbreaks of significant impact are major, large-scale disease outbreaks that ultimately may affect multiple jurisdictions.
- Support the development of permitting guides that outline the current processes for **disease response and coral rescue permitting**. Agencies will work together to identify efficiencies that can be achieved to enable rapid response and rescue for significant coral disease outbreaks.