

In This Bulletin

Species Conservation

- TCI Stony Coral Tissue Loss Disease - update

Stony Coral Tissue Loss Disease in TCI - Update

In our WCWG Review of 2019 (circulated recently and also available to download at www.ukotcf.org.uk/news/wcwg-newsletter-1) we appealed for news items which you would like us to publish in a WCWG eBulletin. In that review we highlighted the spread of Stony Coral Tissue Loss Disease (SCTLD) in the Turks and Caicos Islands. So we are very pleased that the Turks and Caicos Reef Fund have sent us information about their latest efforts to treat SCTLD in TCI.

SCTLD is a highly contagious and fast-killing new disease of coral that was first observed in TCI in South Caicos in January 2019, on the reefs of West Caicos in May 2019, in Grace Bay on Providenciales in August 2019 and on Grand Turk reefs in November 2019. In January 2020, TCRF finally received permission from the TCIG's Department of Environment and Coastal Resources to begin treating diseased corals.



Minister of Environment and Tourism, Hon. Ralph Higgs and Don Stark (right), Chairman of the Turks and Caicos Reef Fund, on the occasion of the granting of the research permit to TCRF to allow treating of SCTLD



Read the article in Times of the Islands at www.timespub.tc/2019/09/all-is-not-lost-yet/

SCTLD affects at least 20 species of corals that create much of the structure of coral reefs. These include brain corals, pillar corals and boulder corals. It is not thought to affect sponges or soft corals such as sea-whips and sea-fans, but these species do little to provide coastal protection or habitat for fish and other animals that live on the reefs. When a stony coral dies from SCTLD, it begins to erode, and the structure of the reef begins to decline.

Contact: WCWG Secretary
 Ann Pienkowski
apienkowski@ukotcf.org



Coral head showing early signs of SCTLD (the white patch on the right hand side)

The cause of SCTLD is believed to be a bacterial pathogen. Researchers in Florida, where they have been dealing with the disease since 2014, have found that the most effective therapy is an antibiotic called amoxicillin, a common antibiotic often used to treat ear and other infections. The antibiotic is mixed in a base (either shea butter or a special base developed by a company in Florida just for this purpose). The antibiotic paste is then applied to the margin around an infected lesion on a target coral head. The researchers in Florida have found this approach to be between 67% and 80% effective in stopping the progression of the disease.

Alizee Zimmermann, Project Manager for the TCRF’s treatment effort, explained that, because the treatment is done on a coral-head-by-coral-head basis, it is very time consuming. Many experienced volunteer divers, with flexible schedules and without a penicillin allergy, are needed to tackle the potentially devastating SCTLD problem. These volunteers also need to be trained, and the first training session for this was held on 6 February 2020. The workshop looked at coral identification, diagnostic differentiation, prioritization, treatment preparation and treatment. A first trip to treat corals was planned for a few days after the training workshop.



The workshop in action: Photos by TCRF

Additionally, there is a need for volunteers, who may not fit the stringent requirements for carrying out the treatment, to help gather data on the extent and progression of the disease by doing “roving diver surveys.” A special training session for this category of volunteers will be held in the next few weeks.



Surveyor Lee Munson looking at a healthy Pillar coral Dendrogyra cylindrus at Pine Cay on 10 February. Pillar corals are on the list of endangered species.

Roving diver surveys are a simple technique which involves swimming in a line at a fixed depth for a minimum of 10 minutes and counting all the corals in an area approximately six feet wide. The susceptible species are tallied as un-diseased, potentially diseased, diseased, or dead. A large number of volunteers are needed to conduct these surveys all around the TCI. Any diver interested in becoming a roving diver surveyor should contact the TCRF at info@tcreef.org.

Don Stark, Chairman of TCRF, said that they were extremely grateful to those businesses and individuals who are contributing resources to support this work., which will be an expensive undertaking. For example, space on Big Blue Collective and Dive Provo dive boats have enabled surveys of Grace Bay and Pine Cay. Donated spots on dive trips are integral to TCRF’s ability to collect data. Anyone interested in donating can contact TCRF directly at info@tcreef.org or at (+1 649) 347-8455.

The coral reefs of the Turks and Caicos Islands are vital to support the tourism economy on which TCI greatly depends. Coral reefs throughout the world are under pressure from rising sea temperatures, causing coral-bleaching, and ocean-acidification. Stony Coral Tissue Loss Disease is a third and major threat. Continued degradation of TCI coral-reefs is likely to cause tourists to choose another location for their holiday.

About the Turks and Caicos Reef Fund

Founded in 2010, the TCRF is the only active environmental advocacy organization in the TCI. It is an all-volunteer-run organization that provides funding for education, research and conservation programmes to individuals, organizations and agencies that help to preserve and protect the environment of the Turks & Caicos Islands. Their goal is to have at least 85% of all funds raised through voluntary contributions from divers and snorkelers visiting the Turks & Caicos Islands directed to the Fund's programmes.

Anyone wishing to donate or assist the TCRF in any way can contact them through their website, www.TCReef.org. Scuba divers visiting the islands are encouraged to make a \$10 donation through the purchase of a dive tag that can be attached to their dive gear to show their support. Snorkelers visiting the islands can show their support through the \$5 purchase of a pink or blue silicone wristband. A complete list of outlets for TCRF merchandise can be found on the organization's website www.tcreef.org/.



More images from the workshop. Photos by TCRF