

CARIBBEAN CORRESPONDENCE

Association of Marine Laboratories of the Caribbean Monthly Note to Members

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Sponge Identification and Survey Workshop by WCS in Belize

Over the past few decades, Caribbean coral reefs have been impacted significantly by storms, overfishing, a basin-wide loss of a key urchin grazer, and coral disease, resulting in dramatic declines in hard coral cover, and concurrent increases in the benthic cover of algae and sponges. The effects of global climate change and ocean acidification may also be tipping the competitive balance toward sponges. Because sponges are strongly subject to top-down predator control by spongivorous fish (Loh & Pawlik, 2014), it is possible to develop rapid assessment indicators for fishing intensity based on sponge community composition or growth form.



In late February 2017, the Wildlife Conservation Society (WCS) hosted a sponge identification and field surveying workshop at its Glover's Reef Research Station (GRRS) on Middle Caye. The four-day course was led by Dr. Tse-Lynn Loh who has investigated the direct and indirect effects of predation in shaping benthic community composition, specifically targeting the trophic interactions between fish and sponges. Participants in the course included representatives of marine monitoring teams from the Belize Fisheries Department and the University of Belize as well as local NGOs including Southern Environmental Association (SEA), Toledo Institute for Development and Environment (TIDE), Belize Audubon Society (BAS), and WCS.

The workshop emphasized field identification and monitoring of the 24 most common reef sponges in Belize, representing more than 74% of sponge cover, and incorporating such surveys into existing AGRRA and MBRS monitoring programs already carried out in Belize. Workshop participants were engaged through a combination of lectures, in-class practice with sponge photographs and wet lab specimens, as well as underwater practice through snorkeling and scuba diving around Glover's Atoll.



It is hoped that this specialized training on sponges will enhance monitoring programs nationwide for a more complete understanding of the Belize Barrier Reef complex, the largest component of the Meso-American Reef system. All costs associated to the training were covered by Wildlife Conservation Society's Marine Protected Area Fund. *Photos by: A.Tewfik/WCS*