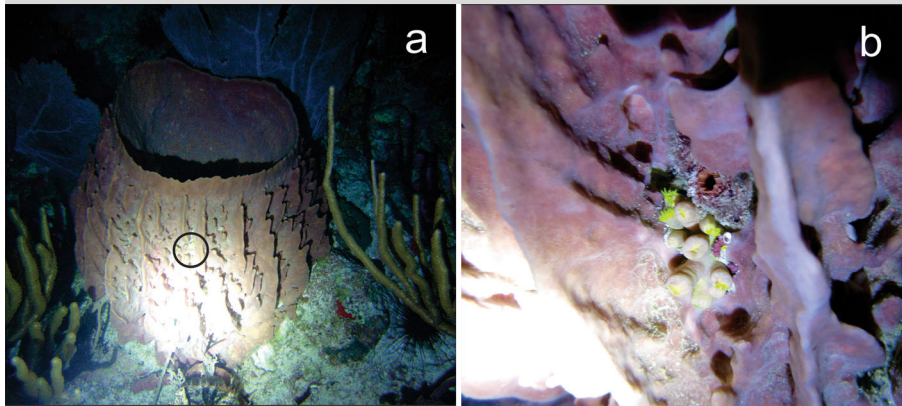


## Record of *Tubastraea coccinea* on *Xestospongia* barrel sponge: a new threat to Caribbean and Gulf of Mexico reefs?



**Fig. 1** **a** Barrel sponge *Xestospongia muta* (Schmidt, 1870) showing its vertical walls and crests, a suitable habitat for *Tubastraea coccinea* Lesson, 1829 colonization; **b** *Tubastraea coccinea* polyps on *Xestospongia muta* wall. Note at right and superior side of coral the presence of one Pyridae Ascidiacea

Over the last 30 years, *Tubastraea* spp. has acquired the status of one of the most effective invasive species in the western Atlantic Ocean causing impacts in community structure, mortality of native corals, and the predation of both fish and invertebrate larva, with presumed effects on fishing yields (Creed et al. 2017; Miranda et al. 2018).

During sampling for the Marine Biodiversity of Yucatan (BDMY) project, seventy-nine sites on six reef areas at Cayos Oeste were surveyed during more

than 320 team dives. One 10 polyp colony of *Tubastraea coccinea* Lesson, 1829 was recorded at Banco Obispo Sur; (20.42535 N/92.22692 W) at a depth of approximately 15 m. It was recorded deeply encrusted on the vertical outer wall of the barrel sponge *Xestospongia muta* (Schmidt, 1870) without any visible indication of necrosis on the sponge surface due to *Tubastraea* cnidocytes (Fig. 1). As *T. coccinea* could become very invasive in just few years after initial establishment (Creed et al. 2017), the colony was completely removed. To our knowledge, it is the first record of *T. coccinea* growing on living animals. The possibility of *T. coccinea* to colonize *X. muta* in the absence of other suitable substrates could favor its spread along reefs both on Gulf of Mexico and Caribbean, representing a threat to these areas.


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### Compliance with ethical standards

**Conflict of interest** The author states that there is no conflict of interest.

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