Reef sites



Predation by *Epidendrium billeeanum* on *Tubastrea coccinea:* use of the denuded skeleton for laying eggs



Epidendrium billeeanum (DuShane & Bratcher, 1965) is a gastropod snail in the family Epitoniidae associated with scleractinean corals and characterized by fragile shells that are usually damaged during the snail's life (Gittenberger and Gittenberger 2005). The snail (Fig. 1a) feeds on the orange cup coral Tubastrea coccinea (Fig. 1b) in the tropical eastern Pacific (TEP). During August 2015 we surveyed the reefs Punta Clavo (11°06.57'N, 85°46.828'W), Paloma Sur (11°11.347'N, 85°50.359'W), Marsella (11°16.895'N, 85°54.399'W), Gigante (11°10.44'N, 86°0.036'W) and Mahaual (11°17.706'N, 85°55.275'W) along the Pacific coast of Nicaragua and we recorded acute tissue loss of T. coccinea. Tissue loss was always in association with the presence of the snail which is camouflaged in the polyps of the coral by its yellow coloration (Fig. 1c). The recently denuded coral skeleton was covered with the eggs of the snail which are also yellow and could be confused with the tentacles of the coral (Fig. 1d). Tubastrea tissue loss was seen on reefs from 3 to 11 m depth in waters of 28 °C. Densities of snails varied between one and three animals per colony. Predation on corals by gastropods is common in the TEP: Jenneria pustulata preys on Porites panamensis (Paz-García et al. 2012) and *Pocillopora* species (Rodríguez-Villalobos et al. 2014). This is the first report of predation on T. coccinea in the Pacific of Nicaragua. Permanent monitoring is needed to obtain information on the dynamics of this predation and the subsequent recovery of corals.

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Fig. 1 a The predator snail Epidendrium billeeanum (scale bar 3 mm), b a healthy colony of Tubastrea coccinea, c a snail behind the polyps (circle) and mass of eggs (arrow), d eggs on an almost dead colony

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