

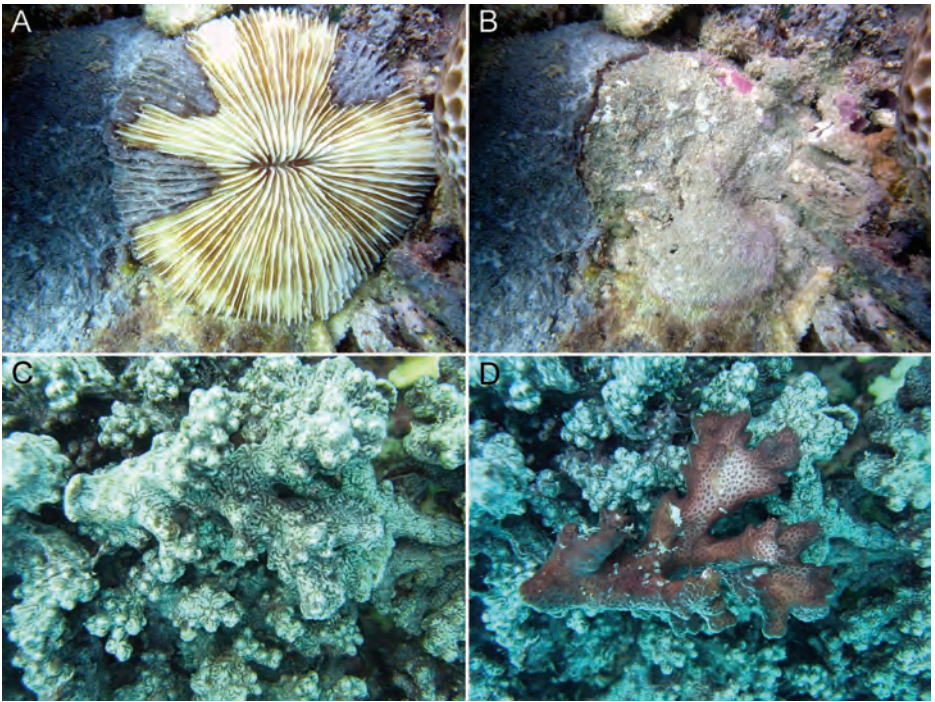
Partial mortality in corals overgrown by the sponge *Terpios hoshinota* at Tioman Island, Peninsular Malaysia (South China Sea)

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Some encrusting and excavating sponges are well known for their aggressive behavior toward reef corals, which usually results in necrosis of coral tissue (Chadwick and Morrow 2011, Wulff 2012). Since its description, the cyanobacteriosponge, *Terpios hoshinota* Rützler and Muzik, 1993, has become notorious for overgrowing live corals on shallow reefs in the west Pacific (Fujii et al. 2011, Wulff 2012, de Voogd et al. 2013), where it may appear as outbreaks, but also can suddenly disappear (Reimer et al. 2011).

During a coral reef survey in June 2013 off the eastern coastline of Peninsular Malaysia, *T. hoshinota* was observed overgrowing corals in shallow water (<5 m depth) around Tioman Island in the South China Sea. At a dive site called “Lighthouse” (02°51’10.1”N, 104°08’55.5”E), a sponge was spotted partly overgrowing a free-living mushroom coral, *Lithophyllon repanda* (Dana, 1846) (Panel A). The lower side of the coral and the substrate underneath were not covered by sponge tissue (Panel B), as was recently observed in a similar interaction that involved the sponge *Chalinula milnei* (de Laubenfels, 1954) (Hoeksema et al. 2014). At

Kampung Mukut (02°42'59.0"N, 104°10'12.8"E), the sponge covered a cluster of the branching coral *Pocillopora damicornis* (Linnaeus, 1758) (Panel C). By breaking off a coral branch, the underside of the coral became visible and appeared to be alive (Panel D). Spicule dimensions [min-mean-max: 155-232-278 × 2-5-8 of the specimen (at Naturalis Biodiversity Center, cat. nr. RMNH POR. 8682) confirmed its identity when compared with those of the holotype (180-251-290 × 3-4), although its tylostyles appeared slightly thicker (Rützler and Muzik 1993).

These observations suggest that *T. hoshinota* has a preference for overgrowing coral parts exposed to sunlight. Corals that superficially appear to be killed may still possess living parts on their underside, away from sunlight. These findings are consistent with results of experiments showing that shading may protect corals against overgrowth by this phototrophic sponge (Soong et al. 2009). Free-living mushroom corals may also limit damage caused by sponges (Panel A) when they are able to escape from sponge contact (Hoeksema and de Voogd 2012).

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