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Fishes (Gobiidae and Labridae) associated with the mushroom coral *Heliofungia actiniformis* (Scleractinia: Fungiidae) in the Philippines



Fig. 1 Gobies **a** *Trimma* sp. (undescribed species), **b** *Eviota pellucida* and *E. lachdeberei*, and the shrimp *Cuapetes lacertae* among tentacles of *Heliofungia actiniformis*

Although the presence of fish on coral colonies and individual polyps of the Anthozoa is relatively common (e.g., Munday et al. 1997), the only fish known to be associated with *Heliofungia actiniformis* is the white pipefish *Siokunichthys nigrolineatus* (see Hoeksema et al. 2011). Other fishes may hover over individuals of this large solitary coral polyp, but without direct contact with the tentacles.

In an attempt to find *S. nigrolineatus*, I searched several hundred polyps of *H. actiniformis* at 3–28 m depth in the Davao Gulf between July 2010 and May 2011. Instead of *S. nigrolineatus*, I regularly observed members of the Gobiidae (*Eviota lachdeberei*, *E. pellucida*, and *Trimma* sp., Fig. 1a) and Labridae (*Bodianus diana*, *Cirrhilabrus exquisitus*, *Oxycheilinus celebicus*, and *O. orientalis*) among the tentacles of *H. actiniformis*. About every 15th coral polyp was inhabited by one or two fish and, at a few occasions, specimens of more than one fish species were present on a single coral polyp (Fig. 1b). These fishes dwelled within the coral canopy apparently without being adversely affected. Although these fishes survive outside this coral microhabitat, I repeatedly observed one specimen of *E. lachdeberei* occupying the same coral polyp over a period of 5 days. The representatives of the Gobiidae were mostly adult specimens, whereas those of the Labridae were exclusively juveniles. Small juveniles (≤4 cm TL) resided among the tentacles, whereas larger juveniles hovered over the tentacles or swam along the coral periphery. This is the first observation of fishes, other than *S. nigrolineatus*, associated with the mushroom coral *H. actiniformis*. Moreover, this is the first record of various fish species cohabiting in a single *H. actiniformis* individual, resembling cases involving various shrimp species in the same coral host (Hoeksema and Fransen 2011) and clown fishes in a single sea anemone (Bos 2011).

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