

Scleractinian corals (Fungiidae, Agariciidae and Euphylliidae) of Pulau Layang-Layang, Spratly Islands, with a note on *Pavona maldivensis* (Gardiner, 1905)

Abstract

Layang-Layang is a small island part of an oceanic atoll in the Spratly Islands off Sabah, Malaysia. As the reef coral fauna in this part of the South China Sea is poorly known, a survey was carried out in 2013 to study the species composition of the scleractinian coral families Fungiidae, Agariciidae and Euphylliidae. A total of 56 species was recorded. The addition of three previously reported coral species brings the total to 59, consisting of 32 Fungiidae, 22 Agariciidae, and five Euphylliidae. Of these, 32 species are new records for Layang-Layang, which include five rarely reported species, i.e., the fungiids *Lithophyllon ranjithi*, *Podabacia sinai*, *Sandalolitha boucheti*, and the agariciids *Leptoseris kalayaanensis* and *L. troglodyta*. The coral fauna of Layang-Layang is poor compared to other areas in Sabah, which may be related to its recovery from a crown-of-thorns seastar outbreak in 2010, and its low habitat diversity, which is dominated by reef slopes consisting of steep outer walls. Based on integrative molecular and morphological analyses, a *Pavona* variety with small and extremely thin coralla was revealed as *P. maldivensis*. Since specimens from Sabah previously identified as *P. maldivensis* were found to belong to *P. explanulata*, the affinities and distinctions of *P. maldivensis* and *P. explanulata* are discussed.