

SCLERACTINIA OF TAIWAN

III. Family Agariciidae

CHANG-FENG DAI¹ and CHIA-HUEY LIN¹

ABSTRACT

Taxonomic descriptions of the Agariciidae of Taiwan are provided as a part of a series dealing with the Taiwanese Scleractinia. A total of 15 species classified with 5 genera is described. Among them, 3 species are new records to Taiwan. Distributions of Agariciidae on reef habitats in Taiwan and biogeographical distribution of the known Agariciidae in northern West Pacific regions are briefly discussed.

INTRODUCTION

The biogeographic and systematic significance of scleractinian fauna of Taiwan have been discussed in previous papers (Dai, 1989, 1991; Hoeksema and Dai, 1991). This is the third report in a series dealing with scleractinian corals in the coastal waters of Taiwan.

Members of Agariciidae are mostly colonial. Colony formation usually takes place by intratentacular or circumoral budding. The corallites are often borne on ribs. The corallite wall, usually absent, is formed from synapticalae. The septa are commonly solid, formed from a single fan system composed of trabeculae. A columella is absent, or it is derived from the synapticala. Members of Agariciidae are circumtropical, ranging from the Caribbean, the Red Sea and Indo-Pacific east to Panama.

The agariciids of Taiwan have been reported by several authors (Kawaguti, 1942, 1943, 1953; Ma, 1959; Jones *et al.* 1972; Yang *et al.* 1982; Dai, 1986). Most of the previous studies are in the form of species checklist compiled from field surveys or coral collections but with no substantiated record except in publications where clear illustrations are given (Ma, 1959; Dai, 1986). Kawaguti (1942, 1943, 1953) recorded 8 species of *Pavona* (*P. cactus*, *P. decussata*, *P. divaricata*, *P. frondifera*, *P. lilacea*, *P. maldivensis*, *P. praetorta*, and *P. varians*), two species of *Pachyseris* (*P. speciosa* and *P. rugosa*), 1 species of *Leptoseris* (*L. hawaiiensis*) and 1 species of *Coeloseris* (*C. mayeri*). Ma (1959) illustrated 4 species of *Pavona*, 2 species of *Pachyseris* and 1 species of *Coeloseris*. Jones *et al.* (1972) reported 9 species of *Pavona*, 2 species of *Leptoseris*, 2 species of *Pachyseris* and 1 species of *Coeloseris* from the fringing reefs of southern Taiwan. Yang *et al.* (1982) listed 5 species of *Pavona*, 2 species of *Leptoseris*, 2 species of *Pachyseris* and 1 species of *Coeloseris*. Dai (1986) in his study on the coral fauna of southern Taiwan listed 7 species of *Pavona*, 5 species of *Leptoseris*, 2 species of *Pachyseris*, 1 species of *Gardineroseris* and 1 species of *Coeloseris*. In summary, 6 species of *Pavona*, 2 species of *Leptoseris*, 2 species of *Pachyseris*, 1 species of *Gardineroseris*, and 1 species of *Coeloseris* have substantiated records but systematic descriptions of these species have not been provided. The

1. Institute of Oceanography, National Taiwan University, Taipei, Taiwan, R. O. C.