



***Phytocoetes sinensis* n. sp. and *Telmatactis clavata* (Stimpson, 1855), two poorly known species of Metridioidea (Cnidaria: Anthozoa: Actiniaria) from Chinese waters**

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Abstract

Two acontiate sea anemones, *Phytocoetes sinensis* n. sp. within the family Halcampactinidae and *Telmatactis clavata* (Stimpson, 1855) within the family Andvakiidae, are described from the coastal region of Chinese waters. *Phytocoetes sinensis* is an elongated sea anemone discovered from the intertidal mudflat in the East China Sea. The new species is very similar to its only congener *P. gangeticus*, but differs distinctly by the larger body size (length usually 61–130 mm vs. no more than 30 mm) and a higher number of mesenteries (48 pairs vs. 12 or probably 24 pairs) and tentacles (usually 72–118 vs. 50–65). This is the first record of Halcampactinidae in China. *Telmatactis clavata* has been reported only from the warm waters of Japan. We redescribed the species in more details based on specimens collected from the South China Sea. So far the species is known only from warm waters in the western Pacific.

Key words: Hexacorallia, Coelenterata, taxonomy, new species, western Pacific

Introduction

Based on molecular phylogenetic analysis as well as morphology, Rodríguez et al. (2012) established the superfamily Metridioidea Carlgren, 1893 to include acontiate sea anemones and some taxa without acontia. The superfamily contains approximately 441 species within 113 genera and 24 families (Crowther, 2011; Rodríguez et al., 2012; Fautin, 2013).

During the taxonomic investigation of the actinarians in Chinese waters, we found two poorly known species of Metridioidea, *Phytocoetes sinensis* n. sp. from the East China Sea and *Telmatactis clavata* from the South China Sea. The new species represents the first member of the family Halcampactinidae recorded in Chinese waters. *Telmatactis clavata* is the first record in China, and likely inhabits only warm waters in the western Pacific.

Materials and Methods

Specimens for this study were collected from the South China Sea and the East China Sea during the year 1958 through 1984, preserved in formalin or 70% ethanol, and deposited in the Marine Biological Museum (MBM) of Chinese Academy of Sciences at Qingdao, China. Some of the individuals were dissected for inspecting internal anatomy. For histological examinations, paraffin sections cut at 8 µm were stained with hematoxylin and eosin. The cnidae from tentacle, column, actinopharynx, mesenterial filament, and acontium tissues were investigated, photographed, and measured at the magnification of 1000× using a light microscope. Cnidae terminology follows England (1991), and survey method follows England (1987).