



## Report on the two subfamilies Clavatulinae and Cochlespirinae (Mollusca: Neogastropoda: Turridae) from the China seas

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## **Abstract**

Based on the materials deposited in the Marine Biological Museum of the Chinese Academy of Sciences, Qingdao, the present paper reports ten turrid species belonging to six genera of subfamilies Clavatulinae and Cochlespirinae, including two new species, i.e., *Comitas parvifusiformis* sp. nov. and *Leucosyrinx mai* sp. nov., and three species newly recorded from China seas, i.e., *Makiyamaia coreanica* (Adams and Reeve, 1850), *Turricula sumatrana* (Thiele, 1925) and *Nihonia santosi* Shuto, 1969. *Comitas parvifusiformis* sp. nov. was collected from South China Sea in the depth of 42-75 m, which differs from the similar species *C. fusiformis* (Hutton, 1877) by the stronger spiral sculpture; *Leucosyrinx mai* sp. nov. is a deep sea species, collected from Nansha Islands in the depth of 1241 m, which can be distinguished from the close species *L. julia* Thiele, 1925 by the spire whorls sharply carinated at the middle of each whorl.

**Key words:** Clavatulinae, Cochlespirinae, Turridae, Yellow Sea, East China Sea, South China Sea, *Comitas parvifusiformis* sp. nov., *Leucosyrinx mai* sp. nov, new species, new recorded species

## Introduction

Turridae is the most diverse family of Neogastropoda, remarkable with their diverse forms of shells. Although the geographic range of Turridae is cosmopolitan, most species are concentrated in tropical, subtropical and temperate zones. Because of the variations of shape, size and sculptural characteristics as well as color of the shell, the classification of Turridae is always very difficult. Mainly based on the shell characters, Powell (1966) recognized nine subfamilies in the family. McLean (1971) extended the classification into 15 subfamilies. Based on the anatomical and shell characters, Taylor et al. (1993) investigated the relationships among the groups of the superfamily Conoidea with cladistic analysis, and proposed a higher classification of the superfamily. In their classification, the traditional Turridae was divided into five families, i.e., Drilliidae Morrison, 1966, Pseudomelatomidae Morrison, 1966, Strictispirinae McLean, 1971, Turridae H. and A. Adams, 1853, Conidae Fleming, 1822. The genera with slender, hypodermic marginal teeth which belonged to the traditional Turridae were included in the family Conidae in their system. At present, most professional malacologists have adopted the system of Taylor et al., which we will follow in the present paper.

Recently, we have been sorting the material of the family Turridae deposited in the Marine Biological Museum of the Chinese Academy of Sciences (MBMCAS) in the Institute of Oceanology, Chinese Academy of Sciences (IOCAS), collected from the Yellow Sea, the East China Sea and the South China Sea. This paper reports on ten species of the subfamilies Clavatulinae and Cochlespirinae, including two new species and three new recorded species from the China seas.