



## An account of the Genus *Turris* species (Mollusca: Gastropoda: Turridae) from the East and South China Seas

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### Abstract

Five species of the genus *Turris* Röding, 1798 from the China seas are reported in the present paper, they are *Turris grandis* (Gray, 1834); *T. crispa* (Lamarck, 1816); *T. undosa* (Lamarck, 1816); *T. annulata* (Reeve, 1843); *T. normandavidsoni* Olivera, 1999. In which, *T. grandis*, *T. undosa* and *T. normandavidsoni* are recorded here for the first time from the China Seas. The material was collected from the South China Sea off Gongdong, Beibu Gulf, Hainan Island, Xisha Islands, Nansha Islands, and the East China Sea.

**Key words:** *Turris*; Turridae; Mollusca; China seas

### Introduction

The mollusk Family Turridae Swainson, 1840, which is remarkable for its diversity of shells forms, is the most speciose family in the Class Gastropoda. Because the tremendous variation of shape, size and sculptural characteristics as well as shell color, the turrid species are very difficult to distinguish. The genus *Turris* Röding, 1798 includes some large sized turrid species.

Recently, around the China seas, Olivera (1999) reported 12 species of the genus from the Philippines, Okutani (2000) reported eight *Turris* species from Japan, Vera-Peláez *et al* (2000) reported five species of the genus from the Philippines and one species from the southern Indo-Pacific. However, there have been few taxonomic and faunal accounts of *Turris* from the China seas up to now. Tsi Chung-yen *et al.* (1983) and Tsi (2004) reported only one species, i.e., *Turris crispa* (Lamarck) from the South China Sea.

When we sorted the mollusk collection in the Institute of Oceanology, Chinese Academy of Sciences, a lot of turrid specimens collected from the East and South China Seas were separated. This paper is the first one of the series reports about this turrid material, which reports five species of the genus *Turris*.

### Materials and Methods

The material was collected by investigations carried out since the 1950s, including the “National Comprehensive Oceanography Survey” (NCOS, 1958–1960), “China-Vietnam Marine Resource Investigation Cooperative of the Beibu Gulf (=Gulf of Tonkin)” (1959–1962), “China-Germany Marine Biota Cooperative Investigations of Hainan Island, China” (1990–1992), from the East and South China Seas, including off Fujian, off Gongdong, Beibu Gulf, Hainan Island, Xisha Islands (= Paracel Islands), Nansha Islands (=Spratly