

***Luidia changi*, a new sea star species (Echinodermata: Asteroidea: Luidiidae) from the Yellow Sea, with a review of two related species**

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Abstract

In the collections of the Institute of Oceanology, Chinese Academy of Sciences, a new species, *Luidia changi* sp. nov. was discovered mixed in with two closely allied species, *L. quinaria* von Martens, 1865 and *L. yesoensis* Goto, 1914. *L. changi* is described herein; it differs from the two known species in details of abactinal plates, abactinal spinelets, body proportions, and in geographic distributions of the three species.

Key words: Yellow Sea, Asteroidea, Luidiidae, *Luidia changi*, new species

Introduction

Luidia quinaria von Martens, 1865 and *Luidia yesoensis* Goto, 1914 have been recorded from the Bohai Gulf, northern Yellow Sea, to the South China Sea (Liao & Clark, 1995). When we checked the samples of the *Luidia quinaria* -*Luidia yesoensis* complex deposited in the collections of the Institute of Oceanology, Chinese Academy of Sciences (IOCAS), the character combination of arm width, body colour, and form of central paxillar spinelets revealed three distinct species in the samples. The three species have distinct distribution patterns: *Luidia yesoensis* occurs in the Bohai Gulf, *Luidia quinaria* occurs in all the Chinese seas but mainly in the East China Sea, and the third species, from the Yellow Sea, is an undescribed species. In this paper we describe the third species as a new and discuss their morphology and geographic distributions.