



## Description of two new species of munnopsid isopods (Crustacea: Isopoda: Asellota) from manganese nodules area of the Clarion-Clipperton Fracture Zone, Pacific Ocean

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### Abstract

Two new species of deep sea asellotes of the family Munnopsidae, *Rectisura slavai* **sp. nov.** and *Storothyngura yuzhmorgeo* **sp. nov.** are described from the manganese nodules area in the Clarion-Clipperton Fracture Zone of the Pacific Ocean. The discovery of these new species allowed re-examination of the taxonomic position of two similar species, *Storothyngura ? intermedia* (Beddard, 1885) from the Northeastern Basin of the Pacific Ocean and *Ilyarachna defecta* Menzies & George, 1972 from the Peru-Chile Trench, eastern Pacific Ocean. The species are moved to the genera *Rectisura* Malyutina, 2003 and *Storothyngura* Vanhöffen, 1914, respectively. Additional composition and distribution of the species of the genera are presented.

**Key words:** Munnopsidae, *Rectisura*, *Storothyngura*, new species, manganese nodules area, Pacific Ocean

### Introduction

Isopods collected during several expeditions by the Russian Scientific Center “Yuzhmorgeologia” (Federal State Unitary Geological Enterprise, Southern Scientific & Production Association for Marine Geological Operations), Gelendzhik to the manganese nodules areas in the Clarion-Clipperton Fracture Zone (north-eastern tropical Pacific Ocean) were preliminarily identified. The 2000, 2003, 2006 and 2007 expeditions were conducted on different sites with coordinates ranged on approximately 11° - 15°N and 127° - 135°W, at depths of approximately 4600–4900 m. Several species of the family Munnopsidae Lilljeborg, 1864 were among the collected specimens, in particular, two new species from the subfamily Storothyngurinae Kussakin, 2003. The family Munnopsidae is one of the dominant taxa of the deep-sea macrobenthos in terms of species richness (Wilson 1989; Malyutina & Brandt 2007). Swimming munnopsids are rare examples of active epi- and suprafauuna in box core samples. In the earlier collections of the KAPLAN and NODINAUT expeditions from the adjacent areas of manganese nodules no munnopsids were found, though the same type of box corer was used. Recent deep-sea samplings in the Antarctic showed that the most effective gear for collecting isopods was an epibenthic sledge (EBS): more than 13000 specimens of isopods from 674 species were collected by this gear (Brandt *et al.* 2007). The family Munnopsidae accounted for approximately 50% of the specimens and 30% of all isopod species collected (Malyutina & Brandt 2007). The fact that Munnopsidae accounted for just 8% of all isopods in the studied material from “Yuzhmorgeologia” collections, obviously does not reflect the real picture of their biodiversity in the area.

One of the new species, *Rectisura slavai* **sp. nov.** was presented by a large specimen in a good condition collected with a nodule. It clung tightly by the claws of its ambulatory legs on the lower shaggy surface of the nodule (Fig. 1). Another juvenile specimen of the new species was found on the near located station together with the second new species, *Storothyngura yuzhmorgeo* **sp. nov.** The specimens were of the same size and at first sight looked similar. The description of the both species provided further opportunity to compare these genera, check their key characters and revise their composition and distribution.