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A new species of the genus *Mantisgebia* Sakai, 2006 (Crustacea, Decapoda, Gebiidea, Upogebiidae) from the South China Sea

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Abstract

A new species of the genus *Mantisgebia* Sakai, 2006, *M. multispinosa* sp. nov., collected from the South China Sea, is described and illustrated. It is readily distinguished from the other three species of the genus by the numerous spines on the cervical groove, hepatic region, and lower margins of the antennular and antennal peduncles.

Key words: *Mantisgebia*, new species, South China Sea

Introduction

While working on a systematic study of the gebiidean fauna (Crustacea: Decapoda) of Chinese waters, an undescribed species of the genus *Mantisgebia* Sakai, 2006 was found from the South China Sea.

The genus *Mantisgebia* Sakai, 2006 is characteristic among upogebiids in having: the rostrum elongate, bearing a median longitudinal groove and a row of tubercles on each lateral margin; no infrarostral spine; pereopods l–4 slender; pereopod 1 subchelate; the telson lateral margins slightly convergent posteriorly, with the posterior margin deeply concave forming a V-shape.

Only three species are known, all from the Indo-West Pacific: *M. kyusyuensis* (Yokoya, 1933), *M. vonvaupeli* Sakai, 2006 and *M. tuerkayi* Sakai, 2011. *Mantisgebia kyusyuensis* was tentatively included in the genus by Sakai (2006).

The higher taxonomy of the Upogebiidae (13 genera, 163 species according to Ahyong *et al.* 2011) is beyond the scope of this paper and is not discussed here. In this paper we describe and illustrute a new species of *Mantisgebia* from the South China Sea.

Material And Methods

Material for this study was collected in the South China Sea. All material examined is deposited in the Institute of Oceanology, Chinese Academy of Sciences, Qingdao, China (IOCAS). The drawings were made with the aid of drawing tube mounted on a Zeizss Stemi Sv11 compound microscope. The following abbreviations are used throughout the text: cl, length of carapace.

Systematics

Family Upogebiidae Borradaile, 1903

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Genus *Mantisgebia* Sakai, 2006

***Mantisgebia multispinosa* sp. nov.**
(Figs 1–4)

Material examined. **Holotype:** ovig. ♀ (cl, 3.0 mm), MBM136981/SSIVB-28, Stn. 45, Nansha Islands, 4°30′N, 110°00′E, depth 107 m, 18 May 1987. **Paratype:** 1 ovig. ♀ (cl, 3.0 mm), MBM136980/SSIVB-26, Stn. 45, Nansha Islands, 4°30′N, 110°00′E, depth 107 m, 15 May 1987.

Description. Rostrum (Figs 1, 2A–B) elongate, about 2.3 times as long as basal width; tip blunt, projecting far beyond eyes, with 6 spines on each lateral margin, without infrarostral spine; dorsal surface with dense setae and 1 row of small spines opposite sides of median longitudinal groove respectively. Lateral ridges divided by weak mid-dorsal notch, unarmed dorsally, and terminating in small spine distally.

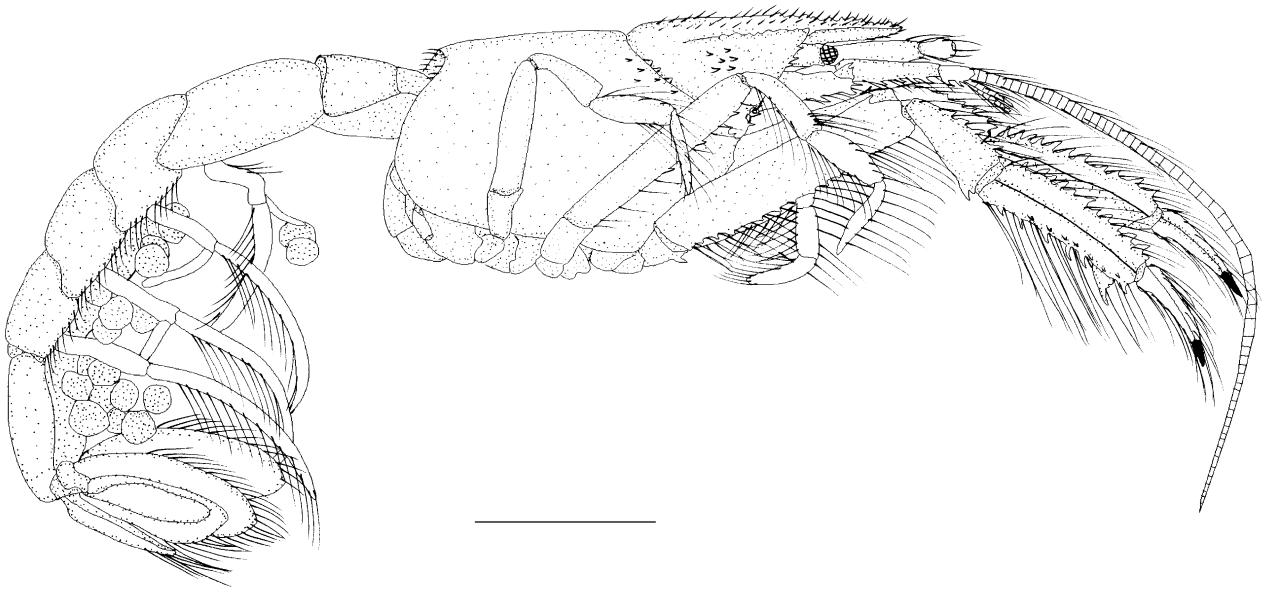

FIGURE 1. *Mantisgebia multispinosa* sp. nov., paratype female, MBM136980/SSIVB-26, entire animal, lateral view. Scale = 1 mm.

Anterolateral border of carapace with 5 spines (3 postocular spines); cervical groove long and deep, with 10 small spines; hepatic region with 6 small spines.

Eyestalks stout (Fig. 2A), reaching to 1/3 length of rostrum, unarmed; cornea almost fully pigmented.

Antennular peduncle reaching to penultimate article of antennal peduncle, articles 1–3 with 3, 1 and 2 spines on lower margin, respectively.

Antennal peduncle thick, article 1 with a curled spine on lower margin; article 2 with 3 spines on lower margin, outer surface with a small sub-basal spine near to upper margin; article 3 with ovate scale on upper surface; article 4 with 4 spines on lower margin; article 5 with a spine at midlength of lower margin.

Maxilliped 3 slender; exopod consisting of 4 articles, longer than the upper margin of ischium (Fig. 2C).

Female pereopod 1 subchelate, slender (Fig. 3A–B). Basis unarmed. Ischium with 1 lower spine. Merus about 5.0 times as long as high, with a row of about 9 lower spines and 2 spines on upper distal quarter. Carpus triangular, elongate, about 0.4 length of merus, with 2 rows of small spines on upper margin and 1 lower subdistal spine, inner face with 3 distal spines. Propodus 3.9 times as long as high, 1.6 length of carpus, with 2 rows of strong spines on upper margin and row of 5 strong lower spines, inner face with row of 12 slender spines near to lower margin; fixed finger triangular, distally sharp, cutting edge curved, with 2 sharp teeth. Dactylus slender with corneous tip, about 0.7 length of palm, lower margin arched, with 5 inconspicuous teeth at midlength, lateral surface carinate medially. Pereopod 2 missing.

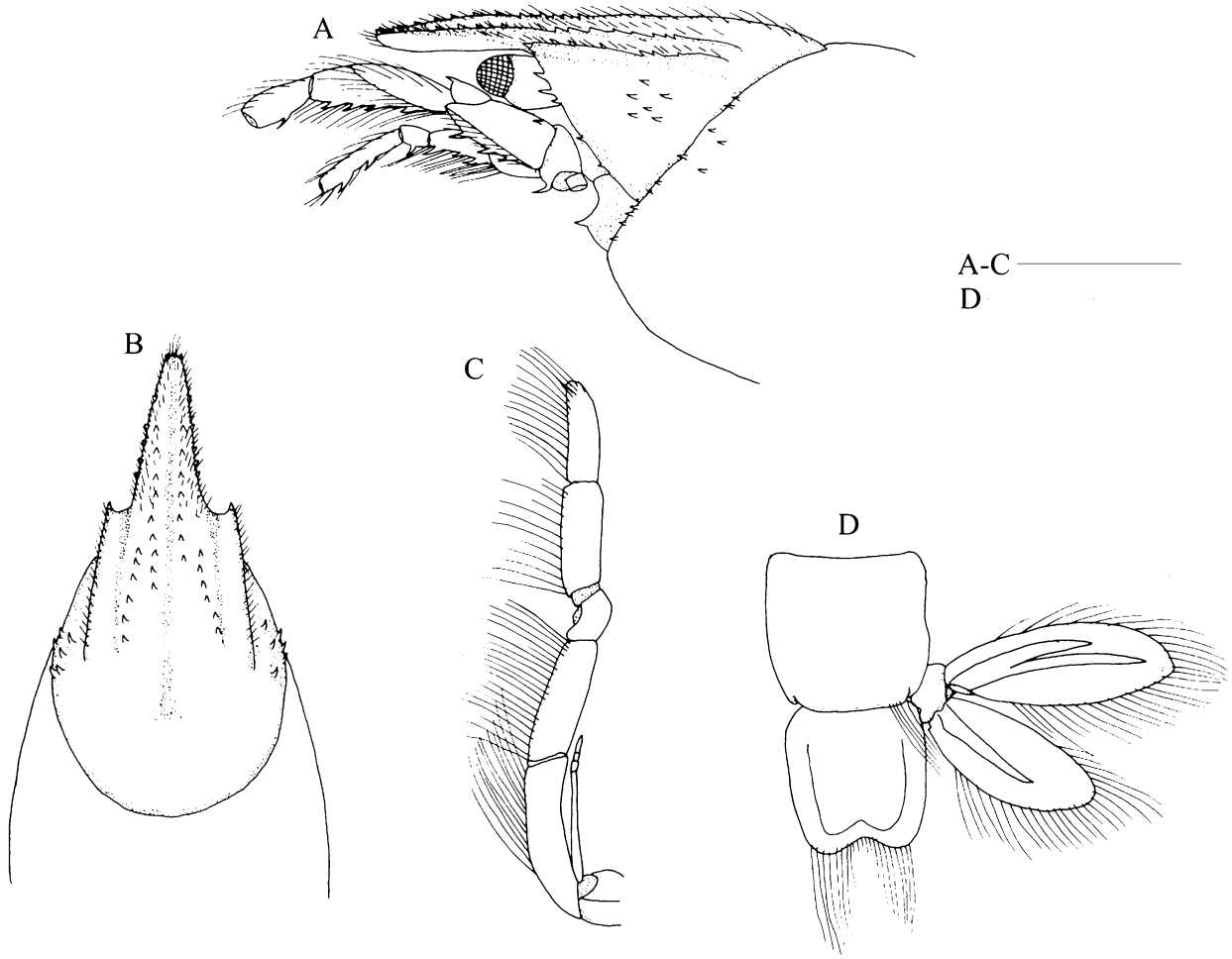

FIGURE 2. *Mantisgebia multispinosa* sp. nov., holotype female, MBM136981/SSIVB-28. A, anterior carapace, lateral view; B, anterior carapace, dorsal view; C, maxilliped 3, outer view; D, abdominal somite 6, telson and uropods, dorsal view. Scale = 1 mm.

Pereopod 3 (Fig. 4A) ischium unarmed. Merus with 4 lower spines, upper margin unarmed. Carpus with a small upper spines. Propodus about 0.8 length of carpus, unarmed, widening in middle. Dactylus slender and elongate, slightly longer than propodus, lower margin with 4 small corneous spines.

Pereopod 4 (Fig. 4B) unarmed. Dactylus slender, slightly longer than propodus.

Pereopod 5 (Fig. 4C) subchelate, unarmed. Dactylus elongate, slightly curved; fixed finger with several small corneous spines.

Abdominal sternites smooth. Telson almost as long as wide (Fig. 2D), slightly shorter than abdominal somite 6; distal margin deeply concave in broad V-shape.

Female pleopod 1 uniramous, consisting of 2 articles. Pleopods 2–5 biramous, with exopods larger than endopods.

Uropodal protopod unarmed. Exopod ovate, about 1.1 times as long as wide, truncate on distal margin. Endopod shorter than exopod, about 2.2 times as long as wide; exopod about 2.9 times as long as wide.

Remarks. *Mantisgebia multispinosa* **sp. nov.** is the fourth species of the genus. It is remarkably distinguished from the other species of the genus by with numerous spines on cervical groove, hepatic region, and lower margins of the antennular and antennal peduncles. *Mantisgebia multispinosa* is closely related to *M. vonvaupeli* Sakai, 2006 in the form of rostrum, being about 2.3 times as long as the basal width (versus about 2.5 times), but it differs markedly from the latter also in the relatively short telson, almost as long as wide (versus about 1.3 times as long as wide).

Etymology. The species name is based on the carapace, antennular and antennal peduncle with numerous spines.

Distribution and habitat. Presently only known from Nansha Islands, South China Sea.

FIGURE 3. *Mantisgebia multispinosa* sp. nov., holotype female, MBM136981/SSIVB-28. A, female pereopod 1, outer view; B, female pereopod 1, inner view. Scale = 1 mm.

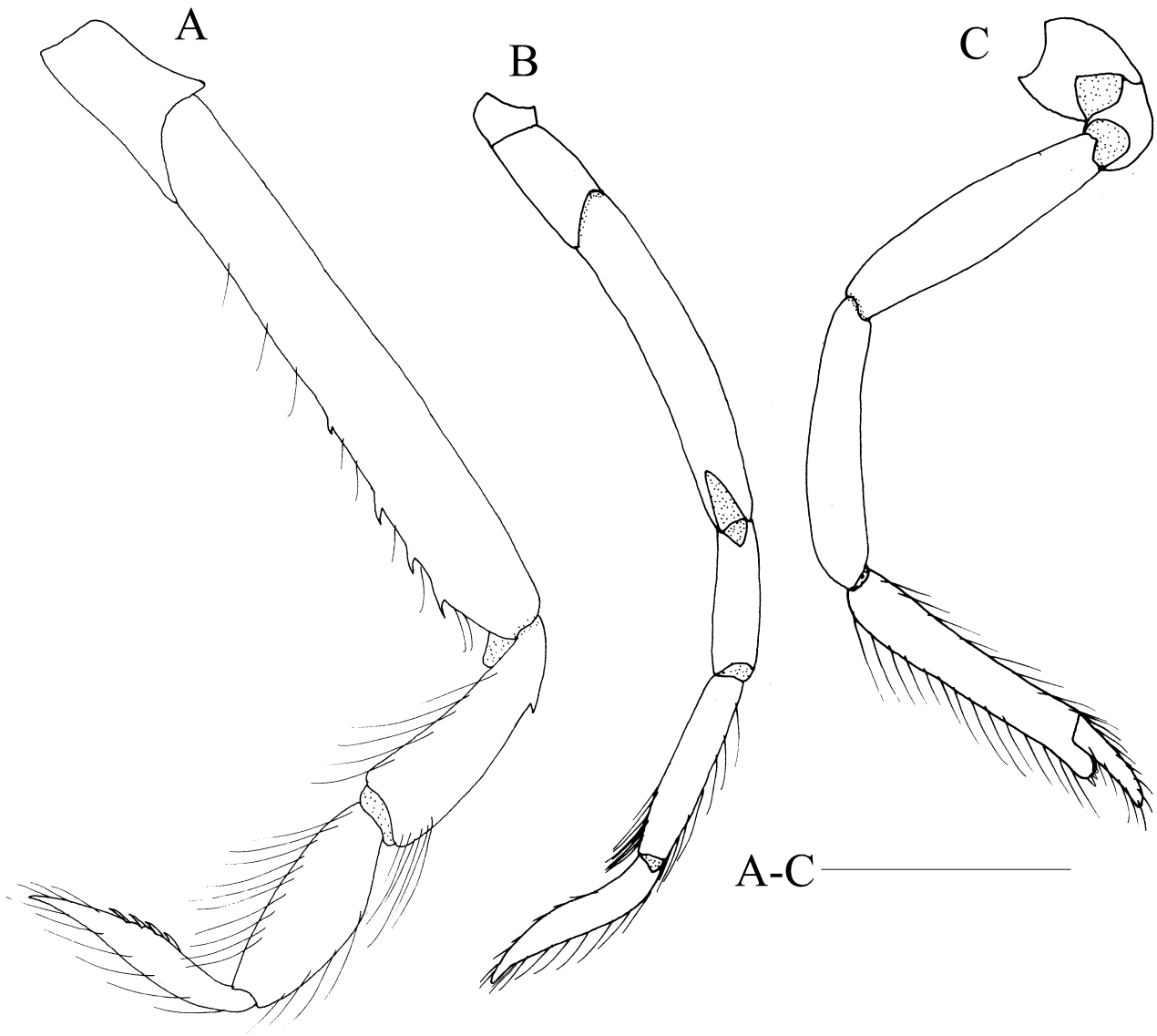

FIGURE 4. *Mantisgebia multispinosa* sp. nov. A, holotype female, MBM136981/SSIVB-28. B–C, paratype female, MBM136980/SSIVB-26. A, pereopod 3, outer view; B, pereopod 4, outer view; C, pereopod 5, outer view. Scale = 1 mm.

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