

Crustaceans and the Biodiversity Crisis

Proceedings of the Fourth International Crustacean Congress,
Amsterdam, The Netherlands,
July 20–24, 1998, vol. I

Edited by

Frederick R. Schram

and

J.C. von Vaupel Klein



BRILL
LEIDEN · BOSTON · KÖLN
1999

MSM

Proceedings of the Fourth International Crustacean Congress, 1998

**EPIPONTONIA HAINANENSIS, A NEW SPECIES OF PONTONIINAE
(DECAPODA, PALAEMONIDAE) FROM HAINAN ISLAND, SOUTH
CHINA SEA**

BY

XINZHENG LI

Institute of Oceanology, Chinese Academy of Sciences, 7 Nanhai Road, Qingdao 266071, China

ABSTRACT

Epipontonia hainanensis, a new species of Pontoniinae (Decapoda, Palaemonidae) from Hainan Island, South China Sea, is described in the present paper. The type specimen is deposited at the Institute of Oceanology, Chinese Academy of Sciences, Qingdao. The carapace, with a distinct supraorbital spine, can distinguish it easily from the other two species of the genus.

INTRODUCTION

From the shrimp collection of the Institute of Oceanology, Chinese Academy of Sciences (IOCAS), one small pontonine shrimp belonging to genus *Epipontonia* was set apart. It differs from those previously described, and a new species is now described for its inclusion. I am grateful to the National Natural Science Foundation of China for its financial support (No. 39770096) to the present study, and to the members of the Chinese-German expeditions to Hainan Island in the winter of 1990, for kindly providing me with the material.

***Epipontonia hainanensis* new species (figs. 1-3)**

Holotype. — 1♀ (ovig.), registration number 90C-387, Neizu Island, Yalong Bay, Hainan Island, 6-9 m depth, from dead corals, 23.vi.1990.

Diagnosis. — Small-sized pontonine shrimp (fig. 1). Rostrum laterally compressed, with 9 developed dorsal teeth and a subapical ventral tooth (figs. 1, 2a, b). Scaphocerite well developed (fig. 2d). Supraorbital and paraorbital spines present, hepatic spine is absent (figs. 1, 2a, b). Mandibular palp absent; all maxillipeds provided with exopods (fig. 2e-g). Second pereopods subequal, with the chelae large without molar-like tooth fitting in a socket of the opposite finger (fig. 3c, d). Dactyls of ambulatory pereopods biunguiculate, unguis and corpus

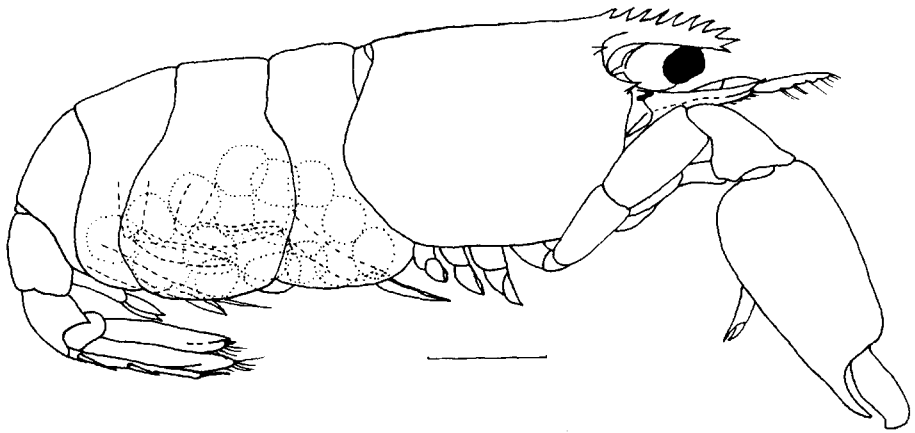


Fig. 1. *Epipontonia hainanensis* sp. n. holotype ♀ (ovig.); scale = 1 mm.

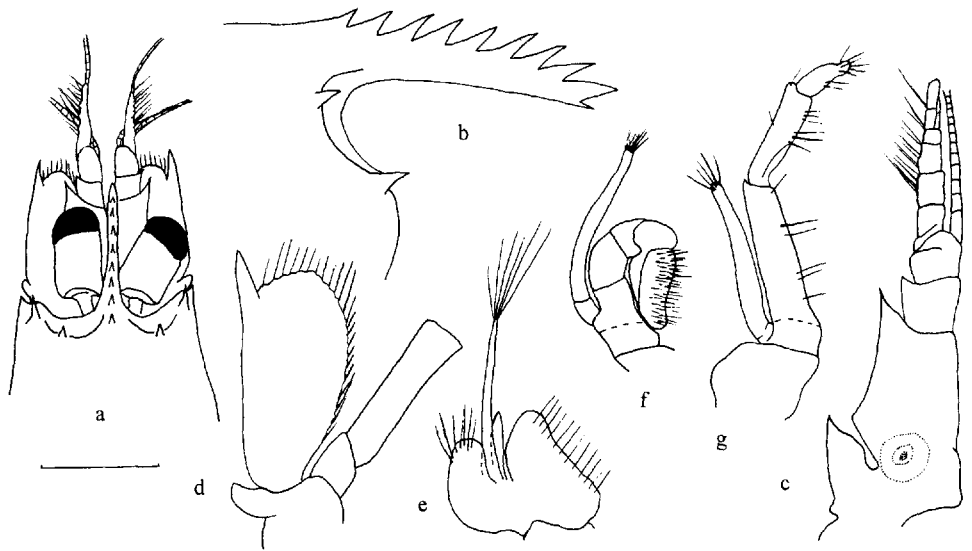


Fig. 2. *Epipontonia hainanensis* sp. n., holotype ♀ (ovig.). a, anterior region of carapace with appendages, dorsal view; b, anterior region of carapace with rostrum, lateral view; c, antennula; d, antenna; e, 1st maxilliped; f, 2nd maxilliped; g, 3rd maxilliped. Scale = 1 mm (a), 0.5 mm (b-g).

minutely denticulate (fig. 3e-h). Diaeresis of uropodal exopod with a single lateral spine at end of outer margin and a large movable spine medially (fig. 3i). Telson with 2 pairs of dorsal spines and the usual 3 pairs of posterior marginal spines (fig. 3j).

Description. — A small sized and semitransparent pontoniine shrimp, with sub-cylindrical body form. Carapace (figs. 1, 2a, b) smooth, with a well-developed rostrum that extends anteriorly in a slightly ventral direction, and reaches about

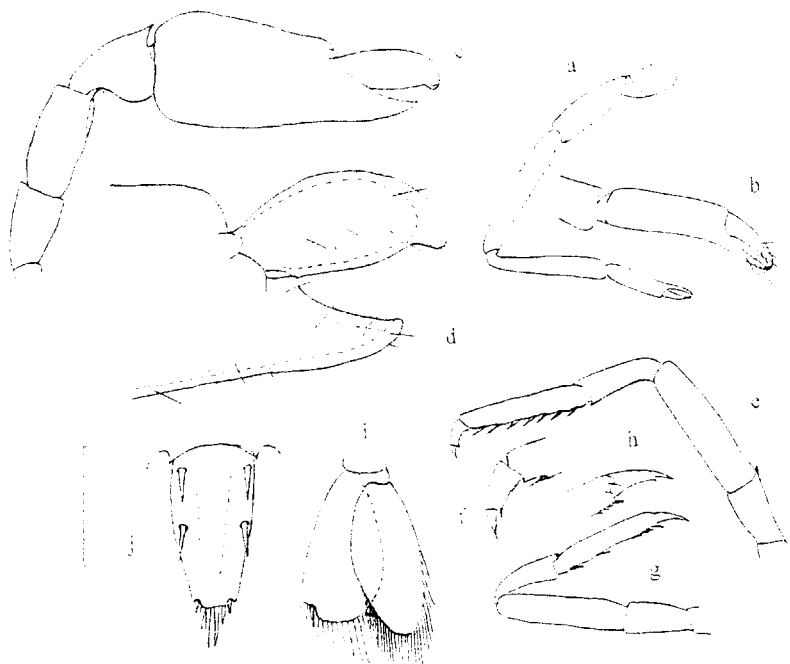


Fig. 3. *Epipontonia hainanensis* sp. n., holotype 2 (ovig.). a. 1st pereopod; b. same, chela; c. 2nd pereopod; d. same, chela; e. 3rd pereopod; f. same, distal propod and dactyl; g. 5th pereopod; h. same, distal propod and dactyl; i. uropod; j. telson. Scale = 1 mm (a, c, e, g, i, j), 0.5 mm (b, d, f, h).

the level of the distal margin of the second segment of the antennular peduncle. Dorsal margin straight, with nine acute teeth and interdental setae. Posteriormost tooth smallest and situated immediately posterior to the level of the orbital margin, others more or less similar to each other in size. Ventral margin straight, with a small acute tooth at the tip, no setae. Supra-orbital spine present. A well-developed, slender, acute spine is present, situated immediately above the orbital angle. Inferior orbital angle undeveloped. Antennal and hepatic spines absent. Antero-lateral margin of the carapace rounded, produced. Fourth thoracic sternite unarmed, following sternites narrow.

Abdomen (fig. 1) smooth, with more than 30 eggs. Third somite not produced posteriorly in dorsal midline. Fifth somite subequal in length to the sixth, with a curve at upper half of postero-lateral margin. Sixth somite broad and depressed, posterolateral angle produced, small and rounded, postero-ventral angle is produced and sharp. Telson (fig. 3j) about twice the length of the sixth abdominal somite and twice as long as broad. The lateral margins convex, with the broadest point at about 2/5 their length. Width at the base about 1.9 times that of the posterior margin. Two pairs of large, subequal, dorsal movable spines present, at

Chela compressed, with the palm tapering slightly distally, about 1.9 times the greatest depth. Dactylus compressed, unarmed, with the tip hooked bluntly and the cutting edge entire and convex, about 2.5 times the greatest depth. Fixed finger tapering distally, with the tip acute and the cutting edge entire and slightly concave, and a strong and blunt knob at the base. Carpus short and stout, of triangular form, thickening distally, $5/6$ of length of the dactylus, 1.2 times the greatest width, non-tubercular and distally unarmed. Merus compressed, subequal to the length of the dactylus, unarmed, with external and inner margins slightly convex, about 1.7 times the central depth. Ischium compressed, about 0.8 of the meral length, $2/3$ the distal depth. Ambulatory pereopods are slender. Dactyl of the third pereopods (fig. 3e, f) slender, tapering, about 2.6 times of the proximal depth. Unguis is distinct, acute, with numerous small teeth on the ventral border. Corpus about $2/3$ of the dactylar length, with an acute disto-ventral accessory tooth and a series of similar small teeth distributed along the ventral border. Propod about 3.7 times the length of the dactyl, about 5.6 times of the depth, tapering slightly distally, with 7 ventral spines. Carpus about 0.6 of the length of the propod, unarmed. Merus robust, uniform and unarmed, slightly shorter than propod. Ischium about half of the propod length, broadening slightly distally, unarmed. Fourth and fifth pereopod (fig. 3g, h) similar but progressively more slender. Dactyl of the fifth pereopod has a small accessory spine, unguis distinct.

Exopod of the uropod (fig. 3i) has a slightly convex lateral margin, with a distinct, acute disto-lateral tooth, and a large mobile spine. Lamina not exceeding the tip of the mobile spine, about 2 times the width. Endopod slightly longer than the exopod, about 2.2 times the width.

Measurements. — Total length (rostral tip to posterior margin of telson) 8.6 mm (approx.); rostrum length 1.05 mm; post-orbital carapace length 2.17 mm; abdomen length (including telson) 5.89 mm; telson length 1.24 mm; eye's diameter 0.37 mm; length of ova 0.34–0.38 mm; length of exopod of uropod 1.21 mm, that of endopod 1.23 mm. The lengths of pereopods (ischium:merus:carpus:propodus:dactylus) (mm): P_1 : 0.63:1.11:0.99:0.72:0.22; P_2 (major): 0.70:0.96:0.80:2.60:0.93; P_2 (minor): 0.62:0.90:0.68:2.23:0.36; P_3 : 0.63:1.08:0.60:1.02:0.30; P_5 : 0.60:0.96:0.48:0.37:0.22.

Etymology. — The specific name refers to the type locality, Hainan Island; it is an adjective agreeing in gender with the (feminine) generic name.

Remarks. — The new species agrees with the characters of *Epipontonia* Bruce, 1977, especially in the presence of the paraorbital spine, the body form, and the characters of the ambulatory legs, although the presence of the supraorbital spine differs from the conditions in the other two known species of the genus, *E. anceps* Bruce, 1983 and *E. spongicola* Bruce, 1977. The range of the genus is

Queensland, Australia, west Pacific Ocean (*E. anceps*) and Kenya, western Indian Ocean (*E. spongicola*). The type locality of the new species, Hainan Island, is the first record of the genus in the South China Sea. Both *E. anceps* and *E. spongicola* associate with sponges, the only specimen of the new species was collected from dead corals, failing to reveal its host, but its body form shows that it is likely associated with a sponge, too. Up to date, three species of the genus have been described. They can be distinguished by the following differences:

	<i>E. hainanensis</i> n. sp.	<i>E. spongicola</i> Bruce, 1977	<i>E. anceps</i> Bruce, 1983
Ventral rostral tooth	Subapical	Not subapical	Not subapical
Supraorbital spine	Present	Absent	Absent
Second pereopods	Similar and subequal	Similar and subequal	Dissimilar and unequal

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- —, 1983. *Epipontonia anceps* n. sp., a sponge-associated pontoniine shrimp from Heron Island, Queensland (Crustacea: Decapoda: Palaemonidae). *Records of the Australian Museum*, **35**: 19-28, figs. 1-10.