

广东省沿岸梭子蟹属两新种*

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提要 1980年12月和4月, 分别采自广东省大亚湾三门岛及海南岛清澜港的甲壳类标本中, 有5个属于梭子蟹属, 经鉴定其头胸甲后缘与后侧缘之间有刺(齿), 而额缘分3齿, 与梭子蟹属的已知8种的特征有显著不同, 故定为新种, 即: 大亚湾梭子蟹(新种) *Portunus dayawanensis* sp. nov. 及海南梭子蟹(新种) *Portunus hainanensis* sp. nov.。

梭子蟹属 Genus *Portunus* 系梭子蟹科 Family Portunidae 的模式属, 由 Weber 于 1795 年建立, 全世界均有分布, 但以印度-西太平洋区的种类特别丰富, 迄今已记录近 50 种和亚种, 我国占 18 种。它们主要栖息于潮下带浅水区, 有些种类在潮间带也可采获。梭子蟹属种类虽多, 但头胸甲后缘与后侧缘之间有刺(齿), 额缘具 3 齿(叶)的仅有 8 种: *P. tenuipes* (de Haan, 1853); *P. rugosus* (A. Milne-Edwards, 1861); *P. alcocki* (Nobini, 1905); *P. tweediei* (Shen, 1937), *P. mariei* Guinot, 1957; *P. spiniferus* Stephenson and Rees, 1967; *P. trilobatus* Stephenson, 1972 及 *P. tridentatus* Yang, Dai and Song, 1979。

我们在 1980 年采自广东大亚湾三门岛及海南岛清澜港的标本中, 发现两种与上述种的特征均有显著不同, 故定为新种, 命名为大亚湾梭子蟹(新种)和海南梭子蟹(新种)。新种的模式标本保存于中国科学院海洋研究所(青岛)。

1. 大亚湾梭子蟹(新种) *Portunus dayawanensis* sp. nov. (图1)

模式标本 正模♂(COO989), 头胸甲长为 11.3mm, 宽 26.4mm, 1980 年 12 月 24 日采自广东省大亚湾三门岛。副模: 3♀(COO990), 头胸甲长分别为 14.5, 11.2, 7.3mm, 宽分别为 29.2, 25.0, 16.8mm。采集地点及日期均同上。

头胸甲宽约为长的 2—2.3 倍, 表面无毛。分区较明显: 前胃区及中胃区前部低洼, 较光滑, 但前胃区各有一块颗粒群, 两者的后部均隆起, 且有颗粒。后胃区稍低平, 也有颗粒。心区甚隆, 中央有一浅沟分成两部分。侧后心区及中后心区有颗粒, 前者较后者隆起。前鳃区有些颗粒, 有一条颗粒脊延伸至前侧缘第 9 齿。额具 3 钝圆齿, 中齿大小约为侧齿的 1/2。背眼窝缘具两条缝, 内齿钝, 外眼窝齿粗壮; 腹内眼窝齿突出, 背面可见。前侧缘共具 9 齿; 第 1 齿粗壮, 第 2, 4, 6 齿小, 第 7, 8 齿较大, 末端尖, 末齿最长而直。后侧缘与后缘之间有一枚小刺。第 3 颚足长节的外末角十分突出, 其内缘及外末角密具短毛。

螯足不等大, 右稍大于左。长节前缘具 4 齿, 后缘呈锯齿状, 近末端有齿两枚。腕节背面有 3 条颗粒脊及两齿。掌部背面有两条颗粒脊, 其中一条有一排短毛; 外面也有两条

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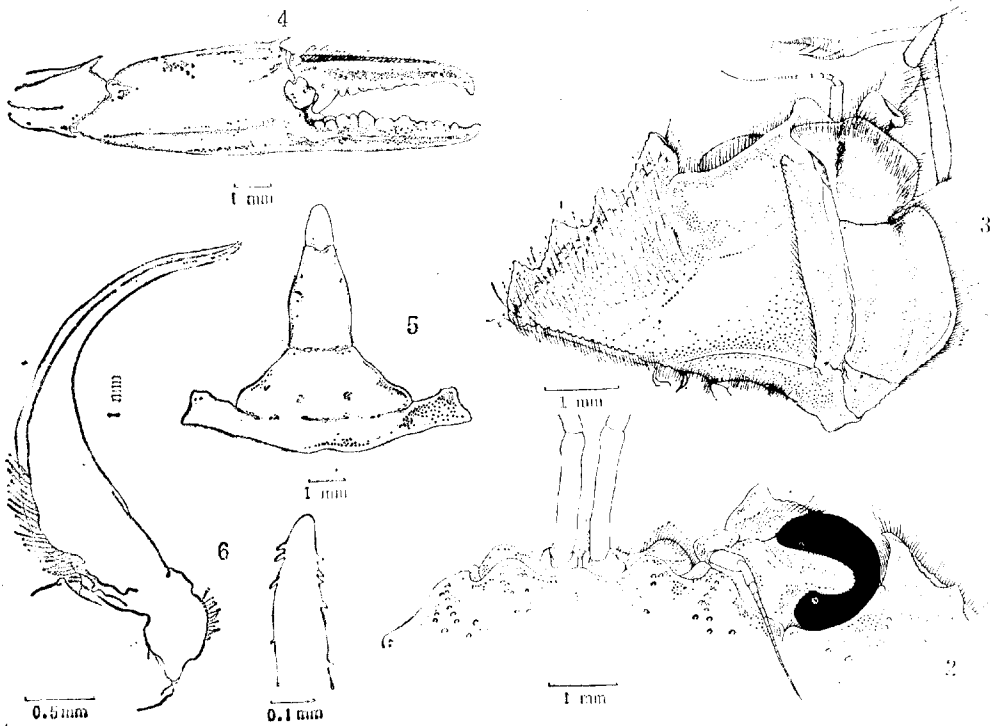
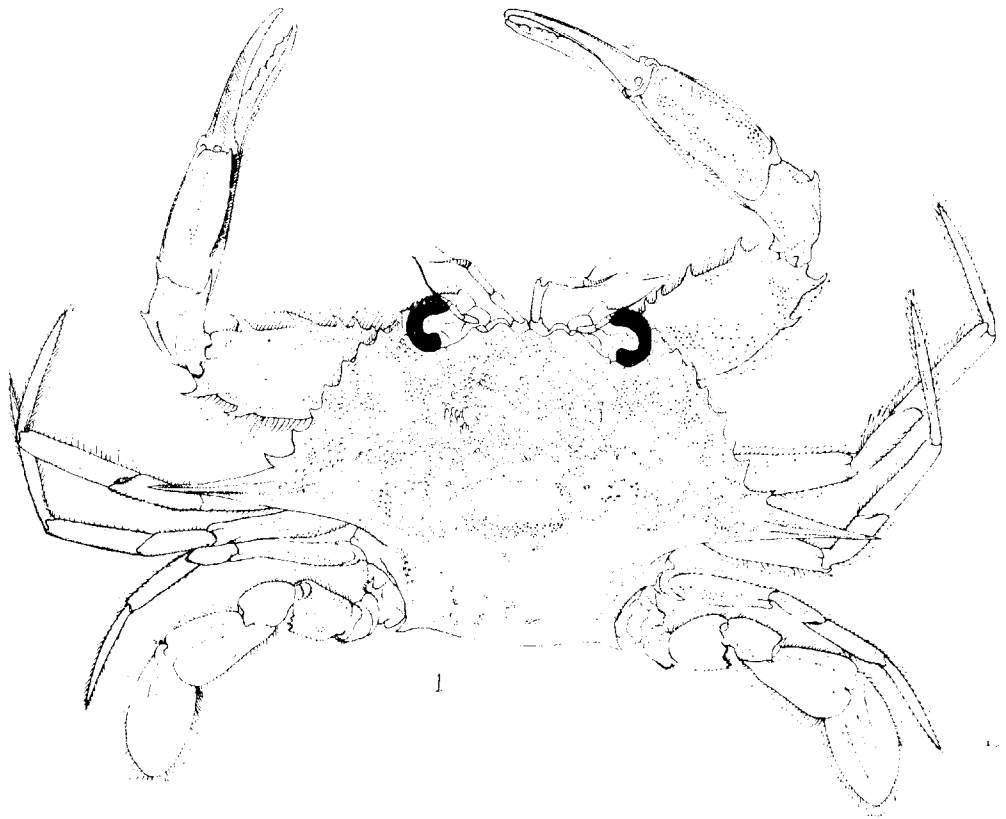


图 1 大亚湾梭子蟹(新种) *Portunus dayawanensis* sp. nov.

1. 全形(♂); 2. 额—眼窝背面观; 3. 第3颚足、眼窝腹面观; 4. 螯足; 5. 雄性腹部; 6. 雄性第1腹肢。

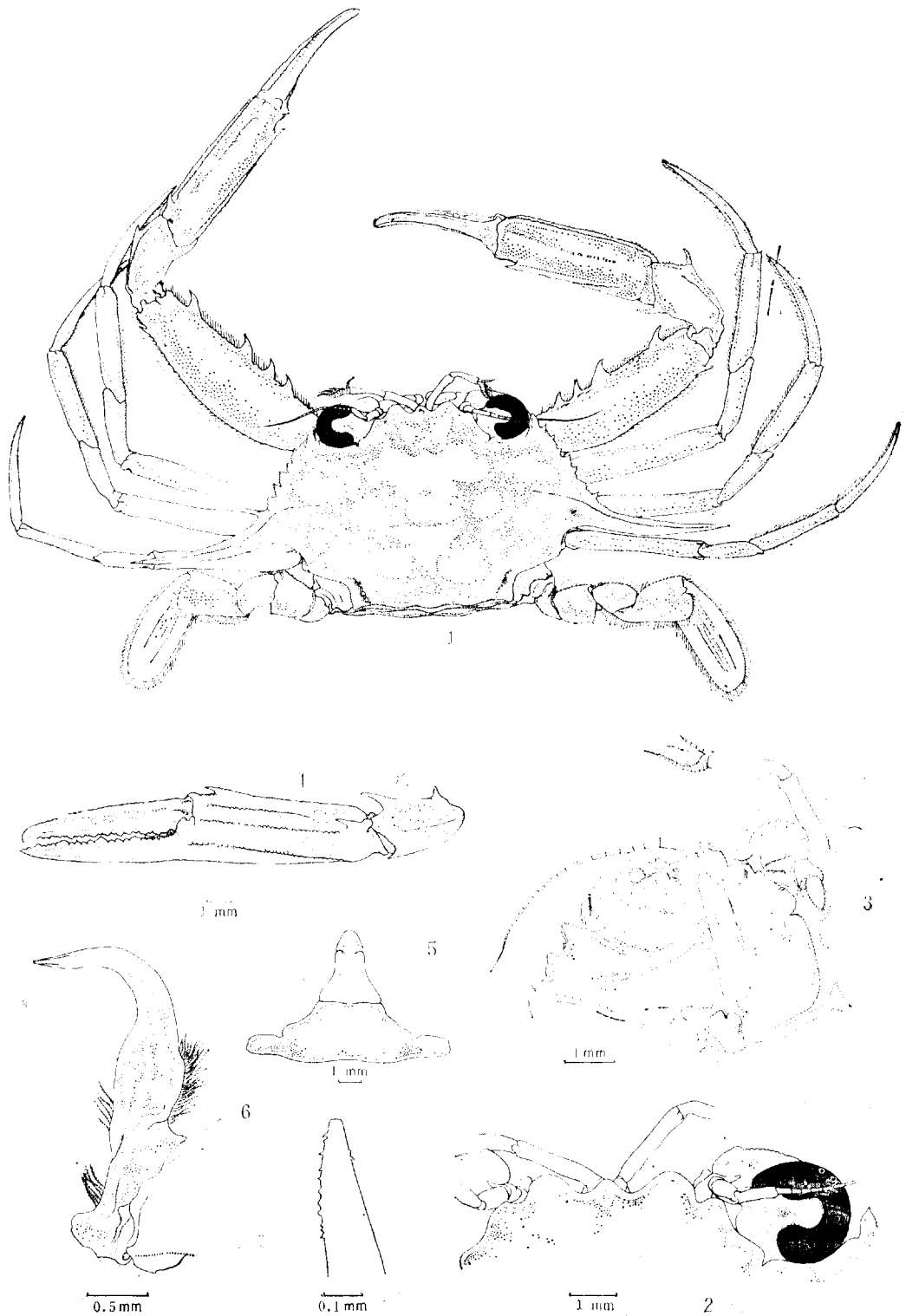


图2 海南梭子蟹(新种) *Portunus hainanensis* sp. nov.

1. 全形(♂); 2. 额一眼窝背面观; 3. 第3颚足、眼窝腹面观; 4. 螯足; 5. 雄性腹部; 6. 雄性第1腹肢。

颗粒脊;内面两条颗粒脊不甚清楚,但无毛。指与掌等长,背缘近基部 2/3 有一排短毛,内缘有钝齿。

第 4 步足长节前缘有长羽状毛,后缘末半部有小齿,其中有 2—3 齿较大,基半部有粗颗粒,但无毛。掌和指均无齿。

雄性腹部第 6 节瘦长,其基部宽度约为末部的两倍。尾节长卵圆形。雄性第 1 腹肢粗壮,弯度中等,末端有几根小刺。

新种与三叶梭子蟹 *Portunus trilobatus* Stephensen, 1972 相似,其不同点见下表。

主要特征	<i>P. trilobatus</i> Stephenson 三叶梭子蟹	<i>P. dayawanensis</i> sp. nov. 大亚湾梭子蟹(新种)
1. 头胸甲 中胃区 后胃区 中鳃区	密具细软毛 前缘通常有一脊,有时具 4 条分离的短脊 有短脊 有 4 块颗粒群	无 毛 无 脊 无 脊 有颗粒,但不分几块颗粒群
2. 螯足掌节内面	有两排毛,但无脊	无毛,但有两条脊
3. 第 4 步足腕节后末缘	有小刺	无 刺

2. 海南梭子蟹(新种) *Portunus hainanensis* sp. nov. (图 2)

模式标本 ♂(COO 991), 头胸甲长为 10.7mm, 宽 26.3mm, 1980 年 4 月 29 日采自广东省海南岛清澜港。

头胸甲背面较光滑而有光泽,唯隆起部分有不明显的细颗粒。前胃区及中胃区隆起,前者有不明显的颗粒群。后胃区凹。心区隆起,中央有一浅沟分成两部分。侧后心区稍隆起,中后心区低洼。前鳃区隆起,具有一颗粒脊延至前侧缘末齿的末部。中鳃区有两块颗粒群,前后排列,后者较前者明显。额缘薄,分成 3 齿,中齿大小约为侧齿的 1/2。前侧缘具 9 齿: 第 1 齿粗壮,第 2—8 齿均小,边缘有粗颗粒,第 9 齿最长而弯。后侧缘附近有一列颗粒群。后侧缘与后缘的之间具一钝三角形齿。

第三颚足长节的前部向前突出,中部隆起,两侧凹陷。

螯足不对称,右大于左。长节后缘有细锯齿,近末端具一齿,前缘具粗颗粒和 4 枚弯齿,末齿最小。腕节外缘呈脊状,近末端有一小齿,内缘有一刺。掌长于指,背面及外面共有 5 条颗粒脊,内面也有一条;其背面具两齿,一枚近末端,另一枚在基部。

前 3 对步足瘦长,末对步足长节前缘具长羽状毛,后缘有短毛,后末角薄锐。末两节边缘有短毛。

雄性腹部第 6 节末端宽约为基部的 1/2, 边缘中部向内收敛。尾节呈钝三角形。第 1 腹肢粗短,且弯度大,末端有小刺。

本新种与大亚湾梭子蟹(新种) *P. dayawanensis* sp. nov. 近似,但后者的头胸甲具明显的颗粒,前侧缘第 9 齿较短而直,后侧缘与后缘之间有一刺,螯足短以及雄性腹部末两节粗短。

参 考 文 献

- [1] 杨思谅等, 1979. 西沙群岛蟹类(梭子蟹科)的研究. 海洋科学集刊 15: 77—89, 图 1—13, 图版 I—II.

- [2] Crosnier, A. 1962. Crustacés décapodes portunidae. Faune de Madagascar Vol. XVI. pp. 1—154, 13 pls.
- [3] Guinot, D. 1957. Sur une collection de Décapoda Brachyours (Portunidae et Xanthidae) de l'Île Mayotte. 1. *Portunus (Hellenus) mariei* sp. nov. *Bull. Mus. nat. d'Hist. Nat.* 2(29): 475—484, figs. 1—10.
- [4] Haan, W. De., 1833—1850. Crustacea. In: P. F. von Siebold, Fauna Japonica, sive Descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823—1830 collegit, notis, observationibus a adumbrationibus illustravit. Lugduni Batavorum, fasc. 1—8: i—xxi+vii—xvii+ix—xvi+1—243, pls. 1—55, A—Q, 1—2.
- [5] Milne-Edwards, A. 1961. Etudes zoologiques sur les crustacés récents de la famille des Portuniens. *Arch. Mus. Hist. Nat., Paris* 10: 309—421, pls. 28—38.
- [6] Sakai, T., 1939. Studies on the Crabs of Japan. IV. Brachygnatha Brachyrhyncha. Yokendo Ltd., Tokyo, pp. 365—741, text-figs. 1—129, pls. 42—111.
- [7] Sakai, T., 1976. Crabs of Japan and the Adjacent Seas. (Tokyo,) Kodansha Co. Ltd. pp. I—XXIX+1—773+1—461+1—16, pls. 1—251.
- [8] Shen, C. J. (沈嘉瑞), 1937. Notes on a collection of Swimming crabs (Portunidae) from Singapore. *Bull. Raffles Mus.* 13: 96—139, 20 text-figs.
- [9] Stephenson, W. 1961. The Australian portunids (Crustacea: Portunidae), V. Recent collections. *Aust. J. Mar. Freshw. Res.* 12(1) 92—128, 5 pls.
- [10] Stephenson, W., 1972a. An annotated check list and key to the Indo-West-Pacific swimming crabs (Crustacea: Decapoda: Portunidae) *Bull. Roy. Soc. New Zealand.* 10: 1—64.
- [11] Stephenson, W. 1972b. Portunidae crabs from the Indo-West-Pacific and Western America in the Zoological Museum. Copenhagen (Decapoda, Brachyura, Portunidae). *Steenstrupia* 2 (9): 127—156. figs. 1—8.
- [12] Stephenson, W., and B. Campbell, 1959. The Australian portunids (Crustacea: Portunidae) 3: The genus *Portunus*. *Aust. J. Mar. Freshw. Res.* 10(1): 84—124, 5 pls.
- [13] Stephenson, W., and B. Campbell, 1960. The Australian portunids (Crustacea: Portunidae), 4. Remaining genera. *Aust. J. Mar. Freshw. Res.* 8(3): 312—368, 10 pls.
- [14] Stephenson, W. and M. Rees, 1967a. Some portunid crabs from the Pacific and Indian Oceans in the collections of the Smithsonian Institution. *Proc. U. S. Nat. Mus.* 120 (3556): 1—114, 38 figs. 9 pls.

ON TWO NEW SPECIES OF THE GENUS *PORTUNUS* (CRUSTACEA:BRACHYURA) FROM THE COAST OF GUANGDONG, CHINA*

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ABSTRACT

The present paper deals with two new species of *Portunus* (Crustacea: Brachyura) collected from the coast of Guangdong.

The type specimens are deposited in the Institute of Oceanology, Academia Sinica, Qingdao, China.

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1. *Portunus dayawanensis* sp. nov. (Fig. 1)

Holotype ♂ (C00989), Sanmen Island, Dayawan, Guangdong Province, 1980, XII, 24.

Paratype 3 ♀ (C00990), Sanmen Island, Dayawan, Guangdong Province, 1980, XII, 24.

Carapace 2—2.3 times as broad as long, without hair. Regions relatively defined; the anterior parts of protogastric and mesogastric regions depressed and slightly smooth, but the former with a granular patch. Metagastric region slightly depressed and bearing granules. Cardiac region elevated, separated into two parts by a shallow groove in the middle. Lateral postcardiac and median postcardiac regions granulated, the former more elevated than the latter. Epibranchial region with granular ridge extending to ninth tooth of anterolateral border. Front with 3 bluntly rounded teeth, median about 1/2 the size of laterals. Anterolateral border of carapace cut into nine teeth: first stout, second, fourth and sixth small, seventh and eighth slightly larger, tip sharp, ninth longest and straight. Junction of posterolateral and posterior borders armed with a spine.

Outer distal angle of merus of third maxilliped strongly produced, its inner border and outer distal angle fringed with dense short hair.

Chelipeds unequal, right larger than left. Anterior border of merus armed with four teeth, its posterior serrulated with two teeth near distal end. Dorsal surface of carpus with three granular ridges and two teeth. Dorsal surface of palm with two granular ridges, one of which with a row of short hair; outer surface also with two granular ridges; inner surface with two indistinct granular ridges, but without hair. Finger equals to palm, having a row of short hair at basal 2/3 of dorsal border, its inner border with blunt teeth.

Anterior border of merus of 4th leg fringed with long plumose hair, distal half of posterior border denticulate, with 2—3 teeth larger than the rest, basal half with coarse granules but without hair. Palm and finger without tooth.

The sixth segment of male abdomen slender, its basal breadth is about twice its distal end. Telson elongate ovate. Male first pleopod stout, moderately strongly curved, extremity with a few spines.

The differences between *Portunus trilobatus* Stephenson, 1972, and this new species

Comparative features	<i>P. trilobatus</i> Stephenson	<i>P. dayawanensis</i> sp. nov.
1. carapace		
mesogastric region	with fine dense pile of hair anterior border usually forming a ridge, but sometimes four short discrete ridges	hairless without ridge
metagastric region	with short ridge	without ridge
mesobranchial region	with four granular patches	with granules but not separated into patches
2. inner surface of palm of cheliped	with two rows of hair but without ridge	with no hair but with two ridges
3. posterodistal border of carpus of 4th leg	with small spines	without spine

are as follows.

2. *Portunus hainanensis* (Fig. 2)

Holotype ♂ (C0091), Qinglan Harbor, Hainan Island, Guangdong Province, 1980, XII. 29.
sp. nov.

Carapace slightly smooth and glossy, but elevated regions covered with microscopic granules. Protogastric and mesogastric regions elevated, the former covered with indistinct granular patches, and metagastric region depressed. Cardiac region elevated, middle divided into two parts by a shallow groove. Lateral postcardiac region slightly elevated, median postcardiac region depressed. Epibranchial region elevated and bearing a granular ridge extending to the ninth tooth of the anterolateral border. Posterolateral border covered with a granular patch. Frontal borders thin, divided into three teeth, median about 1/2 size of laterals. Anterolateral border of carapace cut into nine teeth: first stout, second to eighth small, borders coarsely granulated, ninth the longest, curved. Junction of posterolateral and posterior borders with a bluntly triangular tooth.

Anterior part of merus of third maxilliped produced.

Chelipeds unequal, right larger than left. Anterior border of merus with four curved teeth, posterior border serrulated, with a tooth near distal end, inner border bearing a spine. Carpus with outer border ridged and armed with a small tooth at distal end, inner border having a spine. Palm longer than finger, dorsal and outer surfaces with five granular ridges, inner surface with one ridge. Dorsal surface of palm with two teeth, one at the distal end and the other at the basal part.

Anterior three pairs of ambulatory legs slender, last pair with anterior border of merus bearing long plumose hair, posterior border with short hair.

Extremity of sixth segment of male abdomen narrow, about 1/2 as broad as its base. Telson bluntly triangular. First male pleopod short and stout, strongly curved, extremity armed with small spines. This new species closely resembles *Portunus dayawanensis* sp. nov., but the carapace of the latter species is covered with distinct granules, the ninth tooth of the anterolateral border is relatively shorter and straight, the junction of the posterolateral and posterior borders has a spine, the chelipeds are shorter and the last two segments of male abdomen relatively stout and short.