

南海关公蟹属两新种*

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关公蟹属 *Dorippe* 系 Weber 于 1795 年建立的。Serène and Romimohtarto, 1969 年主要根据雄性第 1 腹肢构造的不同, 将原关公蟹属分为三属四亚属, 即 *Dorippe* (*Dorippe*), *Dorippe* (*Dorippoides*), *Neodorippe* (*Neodorippe*), *Neodorippe* (*Nebilum*) 和 *Paradorippe*。在这些属中, 关公蟹属和亚属在印度西太平洋区仅记述过一种, 即 *Dorippe* (*Dorippe*) *frascone* (Herbst)。历年来, 我所在全国沿海进行采集和全国海洋综合调查中获得了一些关公蟹标本, 其中有两个新种, 特报道如下。

中华关公蟹(新种) *Dorippe* (*Dorippe*) *sinica* sp. nov. (图 1, 图版 I)

正模式标本 1♂ (C00117), 广东省南澳岛, 1954 年 3 月 8 日。

配模式标本 1♀ (K117B-2), 北纬 21°、东经 112°, 水深 48 米, 底质泥质砂, 1960 年 2 月 5 日。

副模式标本 1♂, 1♀ (C00115), 广东省汕尾, 1955 年 1 月 15 日。

其他标本 1♀ (S119B-125), 北纬 23°30′、东经 117°30′, 水深 37 米, 底质细砂, 1959 年 12 月 11 日; 4♂, 2♀ (C00114), 广东省汕尾, 1955 年 1 月; 1♂ (K47B-29), 北纬 21°30′、东经 112°, 水深 21 米, 底质软泥, 1959 年 7 月 2 日; 1♂ (K128B-2), 北纬 21°30′、东经 112°30′, 水深 22 米, 底质软泥, 1960 年 2 月 9 日。

大型种。全身具褐色密毛(螯足的指、掌及前两对步足的末 2 节除外)。头胸甲宽大于长, 背面凹凸不平, 分区显著, 有皱纹, 并有突起约 17 枚, 每个突起上都有数枚颗粒。心、肠区有一“Y”型颗粒隆脊, 分叉部分长于基部。额小, 分两个三角形齿, 外眼窝齿锐长, 超出额齿。下眼窝齿大, 弯曲, 突出于外眼窝齿, 齿的外侧有 4—6 枚光滑小齿。年青的雄性及雌性个体的头胸甲前侧缘均有齿, 发育好的雄性, 小齿已消失。

成熟雄性螯足不对称或对称。螯足的座、长、腕三节表面具小而略尖的突起。掌光滑, 若不对称, 掌部就特别肿胀。两指的内缘有钝齿。

步足以第 2 对为最长, 约为头胸甲长度的 2.6 倍, 第 1 对步足次之, 末两对步足短小, 位于背面, 掌节短, 后缘基部有一钝突起, 指短, 呈钩状。

两性腹部均分为七节。雄性第 2—3 节各有 3 枚横列小钝齿, 有时尖; 第 4 节仅有一枚齿。雄性第 1 腹肢粗壮, 末端较窄, 有一些刚毛, 几丁质突起的末端向外侧突出。雌性腹部第 3—6 节各有一横列齿状隆脊, 第 3—4 节中央齿锥形, 两侧有小齿, 外侧齿最长。

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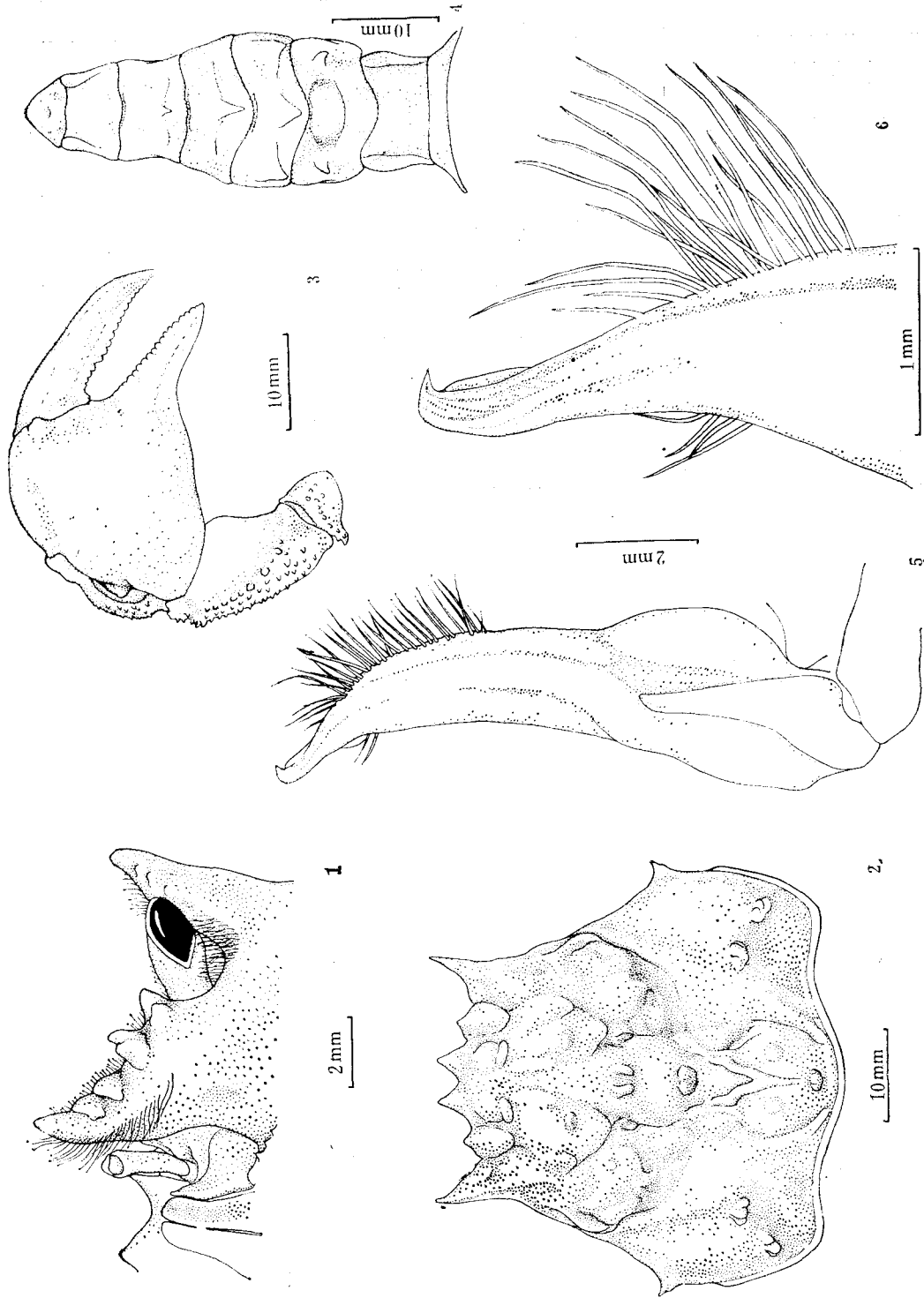


图1 中华关公蟹(新种) *Dorippe (Dorippe) sinica* sp. nov.
 1. 下眼窝齿; 2. 雄性头胸甲; 3. 雄性螯足; 4. 雄性腹部; 5—6. 雄性第1腿肢。

正、配模标本测量(毫米)如下:

	正模(♂)	配模(♀)
头胸甲长度	40.0	38.0
头胸甲宽度	41.6	40.5
螯足长度	63.0	43.5
第1步足长度	90.5	89.5
第2步足长度	102.5	104.0

细足关公蟹(新种) *Dorippe (Dorippe) tenuipes* sp. nov. (图2, 图版 II: 3, 5, 7, 8)

正模式标本 1♂ (L46B-28), 北纬 20°, 东经 111°30', 水深 76 米, 底质砂质泥, 1959 年 4 月 12 日。

配模式标本 1♀ (K89B-62), 北纬 20°30', 东经 113°, 水深 92 米, 底质泥沙, 1959 年 10 月 20 日。

副模式标本 4♂, 2♀ (K81B-39), 北纬 21°15', 东经 113°30', 水深 52 米, 底质砂, 1959 年 10 月 18 日。

其他标本 51♂, 51♀, 幼 1, 南海及北部湾, 水深 33—128 米, 底质泥质砂、碎壳。

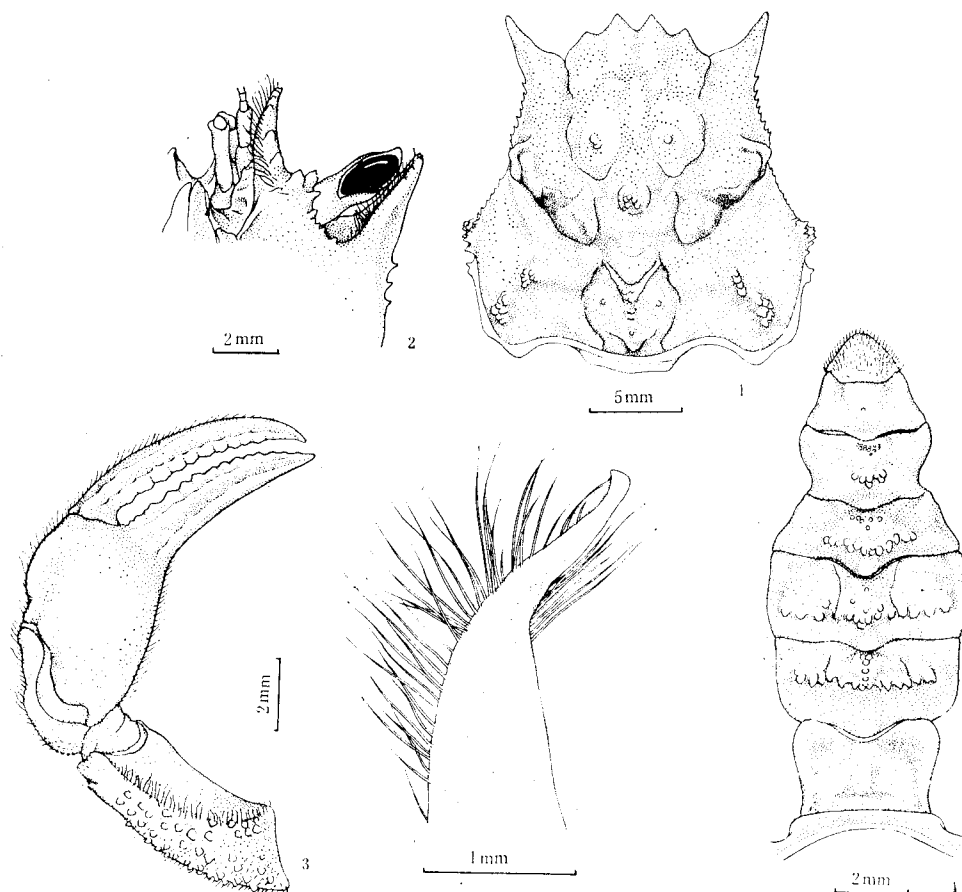


图2 细足关公蟹(新种) *Dorippe (Dorippe) tenuipes* sp. nov.

1. 雄性头胸甲; 2. 下眼窝齿; 3. 雄性螯足; 4. 雄性腹部; 5. 雄性第1腹肢末端放大。

体形、头胸甲背面分区及疣状突起等主要特征都与中华关公蟹(新种)相似,但本新种个体中等大小,头胸甲背面疣状突起小而显著,心、肠区具一“V”形颗粒隆脊,头胸甲前侧缘有钝齿。

螯足对称(共检查 53 个雄性标本)。螯足的长节表面具细颗粒。

步足瘦长,前两对步足无毛。雄性第 2 对步足长度为头胸甲的 3.5 倍,其长节长为宽的 6 倍。

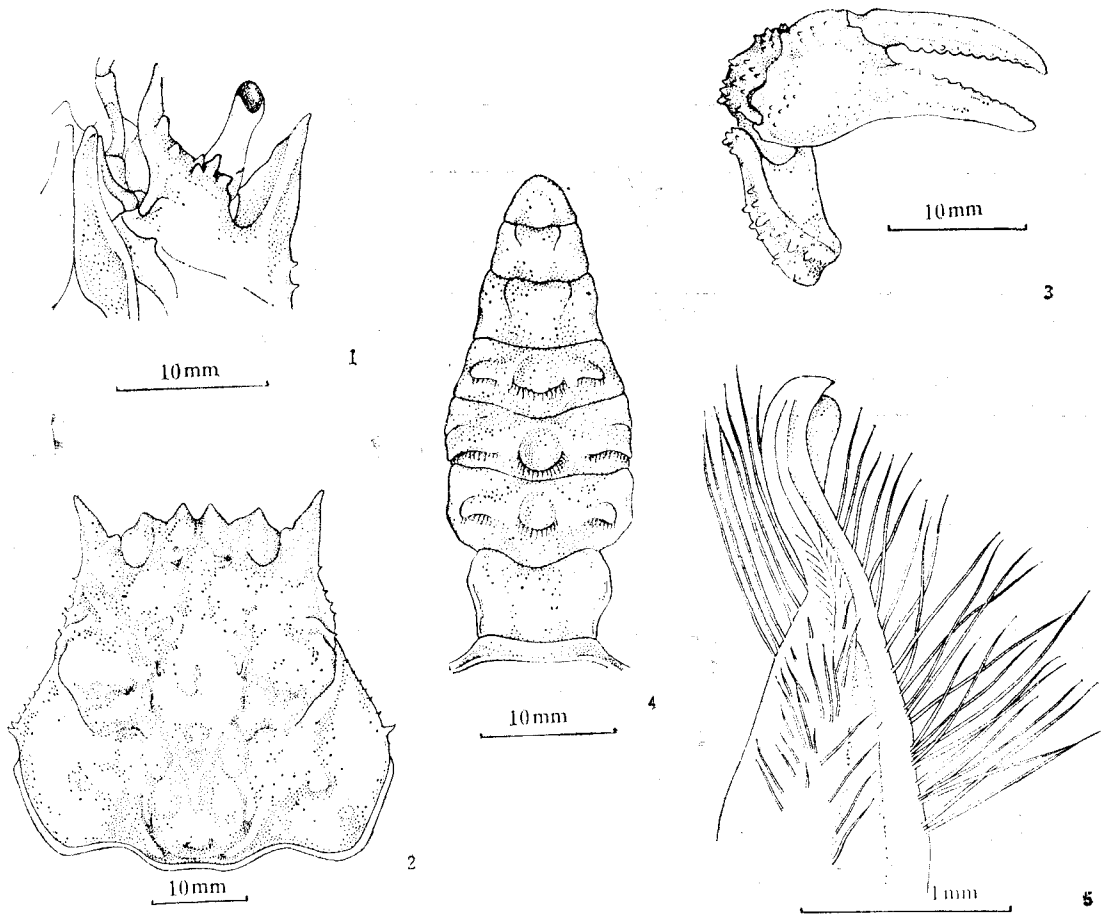


图3 关公蟹 *Dorippe (Dorippe) frascone* (Herbst, 1782)

1. 下眼窝齿; 2. 雄性头胸甲; 3. 雄性螯足; 4. 雄性腹部; 5. 雄性第1腹肢末端放大。

雄性腹部第 2—3 节各有一横列不明显的颗粒突起;第 4—5 节具一横列颗粒隆脊,隆脊前面还有几枚小颗粒。尾节呈钝三角形。雄性第 1 腹肢的几丁质突起较长。雌性腹部第 2—5 节各有一横列颗粒隆脊;第 3—4 节中线上的颗粒呈突起状。

正、配模标本测量(毫米)如下页。

	正模(♂)	配模(♀)
头胸甲长度	18.5	18.5
头胸甲宽度	20.5	21.2
螯足长度	23.2	21.3
第1步足长度	57.2	48.0
第2步足长度	66.4	54.5

上述两新种与 *Dorippe (Dorippe) frascone* (Herbst, 1782)(图3, 图版 II: 1, 2, 4, 6) 类似, 它们之间的差异如下表:

主要特征	中华关公蟹(新种) <i>Dorippe (Dorippe)</i> <i>sinica</i> sp. nov.	细足关公蟹(新种) <i>Dorippe (Dorippe)</i> <i>tenuipes</i> sp. nov.	关公蟹 <i>Dorippe (Dorippe)</i> <i>frascone</i> (Herbst)
1. 个体	大(最大标本头胸甲长为45毫米)。	中等(最大标本头胸甲长为25毫米)	大(最大标本头胸甲长为39毫米)
2. 头胸甲的心、肠区 成熟雄性头胸甲前侧缘	有一“Y”型颗粒隆脊, 分叉部分长于基部 无齿	有一“V”型颗粒隆脊 有钝齿	有一“Y”型颗粒隆脊,分叉 部分短于基部 有尖齿
3. 第2对步足与头胸甲 长度的比例 第2对步足长节长、 宽的比例	2.6:1 5:1	3.5:1 6:1	2.8:1 4.5:1
4. 雄性腹部	第2—3节各有3枚横 列钝或尖的小齿,第 4节仅有一枚	第2—3节各有3枚横 列不明显的颗粒突起, 第4—5节各有一横列 颗粒隆脊	第2—4节各有3枚横列 突起: 中间一枚大而圆, 两侧的突起呈圆锥形或 三角形

参 考 文 献

- [1] Alcock, A., 1896. Material for a carcinological fauna of India. No. 2. The Brachyura Oxystomata. *J. Asiat. Soc. Bengal.* 65(1): 134—296, pls. 6—8.
- [2] Seréne, R. and K. Romimohtarto, 1969. Observations on the species of *Dorippe* from the Indo-Malayan region. *Penelitian Laut De Indonesia Marine Research in Indonesia* 9: 1—35, pls. 1—6, text-figs. 1—29.
- [3] Sakai, T., 1938. Studies on the crabs of Japan. II. Oxystomata. *Sci. Rep. Tokyo Bunr. Daig. B*, 3, *Supp.* 2: 67—192, 45 text-figs., pls. 10—19.
- [4] Shen, C. J., 1931. The crabs of Hongkong Part I. *Hongkong naturalist* 2(2): 92—110, 11 text-figs., pls. 1—10.

TWO NEW SPECIES OF CRABS FROM SOUTH CHINA SEA*

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Abstract

While studying the crab fauna of the South China Sea, the writer found two new species of the genus *Dorippe* (*Dorippe*), the descriptions of which are given below.

Type specimens of these two new species are deposited in the Institute of Oceanology, Academia Sinica, Qingdao, China.

Dorippe (*Dorippe*) *sinica* sp. nov. (Pl. I, fig. 1)

- Holotype** 1♂ (C00117), Nanao Island, Guangdong Province, 1954, III. 8.
Allotype 1♂ (K117 B-2), 21°N, 112°E, depth 48 m, bottom muddy sand 1960, II. 5.
Paratype 1♂, 1♀ (C00115), Shanwei, Guangdong Province, 1955, I. 15.

Large species. Body thickly covered with brown hairs (excepting manus and fingers of chelipeds, two terminal segments of first and second ambulatory legs). Carapace broader than long, dorsal face uneven and wrinkled, with very well defined regions and with about seventeen tubercles which are covered with granules. Front small, with two triangular teeth. Outer orbital tooth long, acute and projected beyond frontal teeth. Infraorbital tooth large, curved and with 4—6 teeth along its outer lateral border and slightly projected beyond outer orbital tooth. Teeth present along the anterolateral border of carapace of young male, but absent in the full-grown male; in the female, present in both young and adult.

Chelipeds of the adult male asymmetrical or symmetrical. Surface of ischium, merus and carpus covered with small, more or less pointed, tubercles. Palm smooth, if asymmetrical much swollen. Fingers with blunt teeth along its inner border.

Second ambulatory leg longest, about 2.6 times as long as carapace. First ambulatory leg shorter than the second but longer than the rest. Posterior two pairs of ambulatory legs short and slender, located on the dorsal face. Palm short, base of posterior border with a blunt tubercle. Finger short, hooked.

Abdomen of seven segments in both sexes: in the male, the second and third segments each with a transverse row of three small blunt or acute teeth: fourth segment with only a single median tooth. Male 1st pleopod strong, with some setae, tapering toward its extremity. Extremity of chitinous process projecting laterally. Each of third to fifth abdominal segments of female with a transversely denticulated ridge, the median tooth of third to fourth segments conical, the other teeth small and

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acute, the outer one longest.

Dorippe (Dorippe) tenuipes sp. nov. (Pl. II: 3, 5, 7, 8, fig. 2)

Holotype 1♂ (L46B-28), 20°N, 113°30'E, depth 76 m, bottom sand mud, 1959, IV. 12.

Allotype 1♀ (K89B-62), 20°30'N, 113°E, depth 92 m, bottom muddy sand, 1959, X. 20.

Paratype 4♂, 2♀ (K81B-39), 21°15'N, 113°30'E, depth 52 m, bottom sand, 1959, X. 18

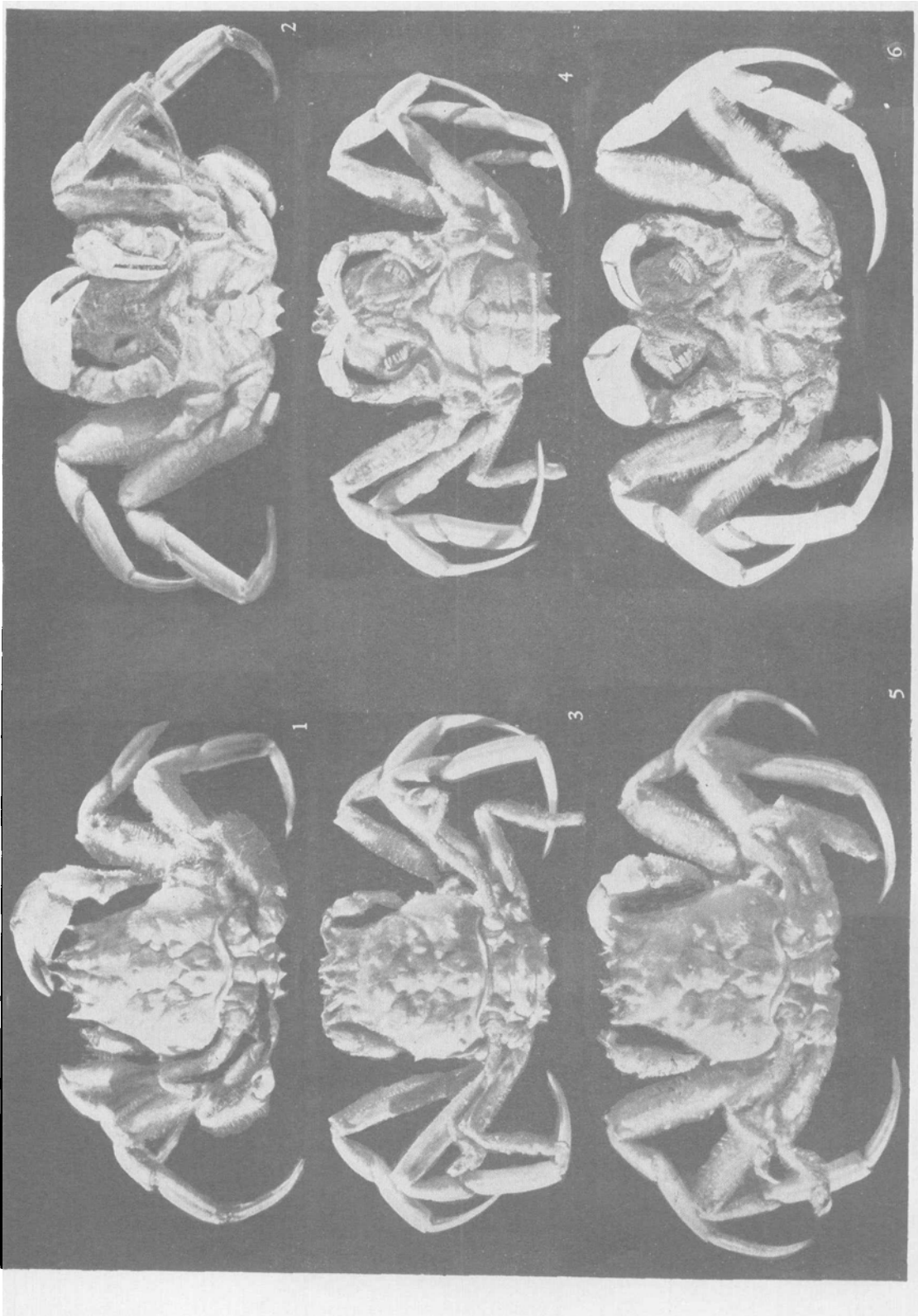
This species closely resembles *Dorippe (Dorippe) sinica* sp. nov., but differs from the latter in being smaller in size. Dorsal face of carapace without wrinkles, its nodules small but distinct. Cardiac-intestinal region armed with a Y-shaped granular ridge. Anterolateral border toothed.

Chelipeds of the adult male (53 specimens) symmetrical. Surface of merus covered with small granules.

Pereopods slender, anterior two pairs not hairy. Second pair 6 times as long as broad. Second and third male abdominal segments with a transverse row of three indistinct granular tubercles. Telson bluntly triangular. Extremity of chitinous process of 1st male pleopod rather long.

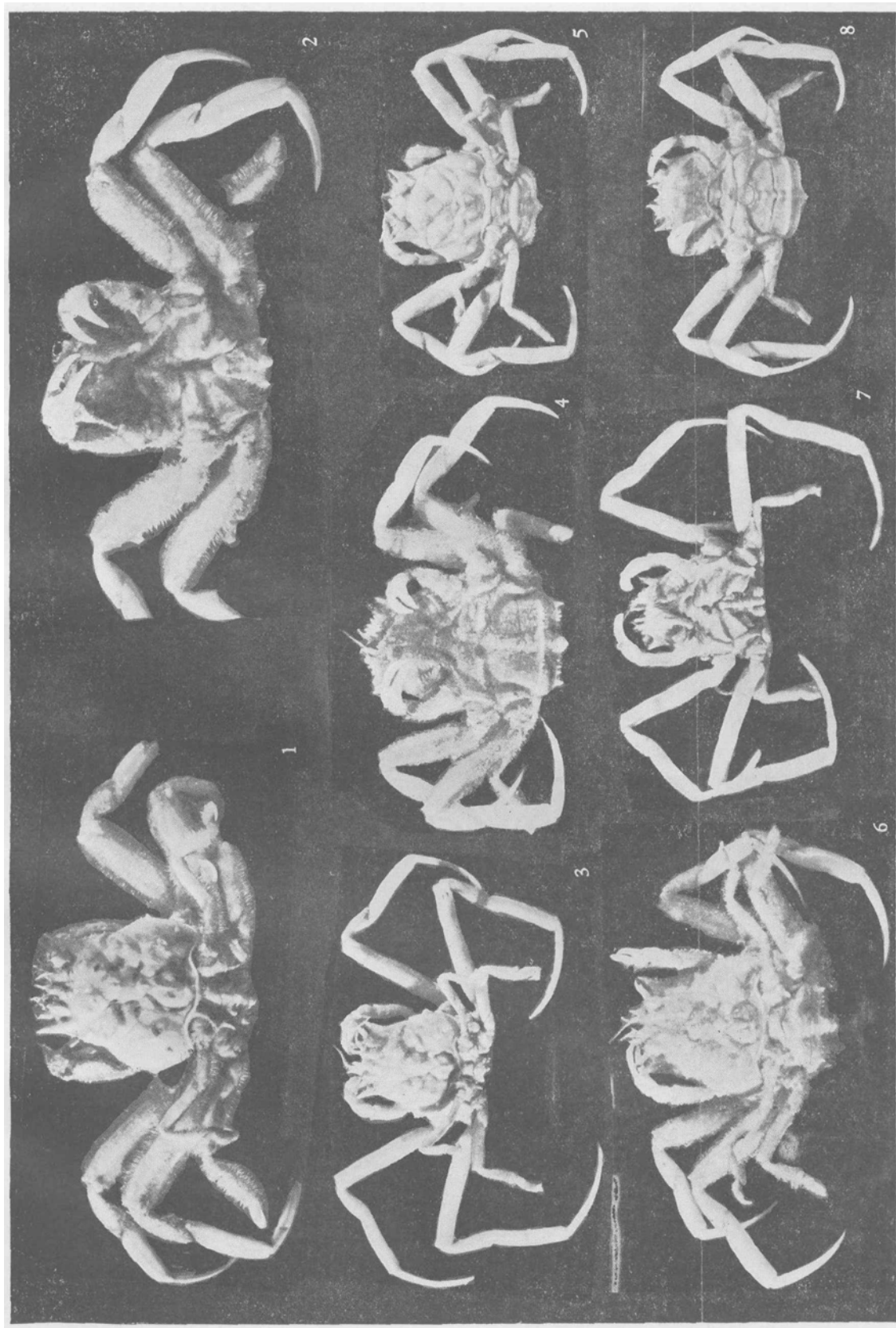
These two new species bear some resemblance to *Dorippe (Dorippe) frascone* (Herbst, 1782) (Pl. II: 1, 2, 4, 6, fig. 3), but they may be distinguished from each other by the characters as shown in below.

character	<i>Dorippe (Dorippe) sinica</i> sp. nov.	<i>Dorippe (Dorippe) tenuipes</i> sp. nov.	<i>Dorippe (Dorippe) frascone</i> (Herbst, 1782)
1. size of adult individual	large (carapace length, 45 mm)	medium (carapace length, 25 mm)	large (carapace length, 39 mm)
2. cardiac-intestinal region of carapace	with a Y-shaped granular ridge; furcated part longer than basal part	with a V-shaped granular ridge	with a Y-shaped granular ridge; furcated part shorter than basal part
anterolateral border	without teeth	with blunt teeth	with acute teeth
3. ratio of length of male 2nd leg to carapace	2.6: 1	3.5: 1	2.8: 1
ratio of length to width of male 2nd leg	5: 1	6: 1	4.5: 1
4. abdomen of male	with a transverse row of three small blunt or acute teeth on second and third segments. The fourth segment with a small median tooth.	with a transverse row of three granulated tubercles on second and third segments. Fourth to fifth segments with a transverse row of granules.	with a transverse row of three tubercles on second to fourth segments: the median ones large and round, the lateral ones conical or triangular



中华关公蟹(新种) *Dorippe (Dorippe) sinica* sp. nov.

1. 雄性背面观(正模); 2. 雌性背面观(正模); 3. 雌性背面观(配模); 4. 雌性腹面观(其他标本); 5. 雄性腹面观(其他标本); 6. 雌性腹面观(其他标本)。



关公蟹 *Dorippe (Dorippe) frascoe* (Herbst, 1782) (1, 2, 4, 6)

1. 雄性背面观; 2. 雄性腹面观; 4. 雌性腹面观; 6. 雌性背面观。

细足关公蟹(新种) *Dorippe (Dorippe) tenuipes* sp. nov. (3, 5, 7, 8)

3. 雄性背面观(正模); 5. 雌性背面观(配模); 7. 雄性腹面观(正模); 8. 雌性腹面观(配模)。