

中国近海仿五角蟹属的研究*

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仿五角蟹属 Genus *Nursilia* 隶属于玉蟹科 Leucosiidae, 拳蟹亚科 Philyrinae, 自 Bell 1855 年建立至今, 仅报道过两种: 钝齿仿五角蟹 *Nursilia dentata* Bell, 1855 及修容仿五角蟹 *Nursilia tonsor* Alcock, 1896, 均分布于印度-西太平洋热带区。Bell 对模式种有文字描述及图, 而 Alcock 对其新种的描述过于简单, 又无图可参考, 这样给后人正确鉴定物种带来了一定困难, 因此两个种有时混淆不清。国内过去对本属没有报道, 因此, 很有必要进行系统的研究。

本文根据我所历年来在东海、南海进行海洋生物调查所获得的标本写成, 共记述 3 种, 其中中华仿五角蟹新种为本属第三个种, 而修容仿五角蟹为我国海区首次记录。新种的模式标本保存于中国科学院海洋研究所(青岛)。

仿五角蟹属 Genus *Nursilia*

Nursilia Bell, 1855, p. 308; Alcock, 1896, p. 259; Ihle, 1918, p. 244; Sakai, 1937, p. 122; 1976, p. 89.

头胸甲宽大于长, 边缘薄, 稍向上卷, 背面有小刺, 形如五角蟹 *Nursia*。螯足与近长臂蟹 *Myrodes* 很相似, 掌膨肿, 短于指, 指呈镰刀状。两性腹部均分为 4 节。

种的检索表

1. 头胸甲胃区深凹, 具 1 对小刺..... 中华仿五角蟹(新种) *Nursilia sinica* sp. nov.
1. 头胸甲胃区微凹, 具 2 对小刺..... 2
2. 头胸甲侧缘刺钝, 纵脊后部具 3 大刺..... 钝齿仿五角蟹 *Nursilia dentata* Bell
2. 头胸甲侧缘刺锐, 纵脊后部具 1 个大刺及 2 小刺..... 修容仿五角蟹 *Nursilia tonsor* Alcock

钝齿仿五角蟹 *Nursilia dentata* Bell, 1855 (图 1)

Nursilia dentata Bell, 1855, p. 309, pl. 34, fig. 6; Haswell, 1879, p. 404; 1882, p. 128; Miers, 1884, pp. 253, 218, 548; Pocock, 1890, p. 73; Alcock, 1896, p. 260; Borradaile, 1903, p. 439; Rathbun, 1911, p. 203, pl. 15, fig. 6; Ihle, 1918, p. 244; Monod, 1938, p. 98, fig. 3; Sanakarankutty, 1962b, p. 156, figs. 6-7; Zarenkov, 1969, p. 24, fig. 5(5); Serene et Soh, 1976 pp. 11-12, fig. c; Sakai, 1976, pp. 89-90, text-fig. 47.

not *Nursilia dentata*: Takeda et Miyake, 1970, p. 222, fig. 6(=*Nursilia sinica* sp. nov.).

模式标本采集地 印度洋。

地理分布 南海中国近海, 泰国, 印度尼西亚, 斐济群岛, 澳大利亚, 印度, 斯里兰卡, 马尔代夫群

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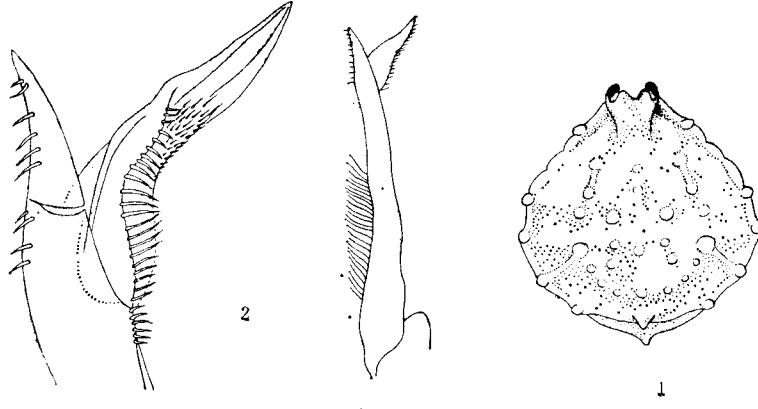


图1 钝齿仿五角蟹 *Nursilia dentata* Bell, 1855

1.头胸甲(仿 Sakai, 1976); 2.雄性第1腹肢(仿 Zarenkov, 1969)。

岛、塞舌耳群岛,南非及红海。

附注 Sakai (1976) 图 47 (雄性标本系采自香港,保存于英国博物馆) 属于本种,但他认为 Stimpson(1907)采自日本的标本也属于本种,这显然不妥,我们认为后者应属于 *N. tonsor* Alcock(1896)。此外, Monod (1938) 图 3 中所示头胸甲的胃区只有一对小刺,可能有误,因为标本的其他征与特 Bell (1855)的图一致,无疑应属于本种。

修容五角蟹 *Nursilia tonsor* Alcock, 1896 (图版 I)

Nursilia tonsor Alcock, 1896, p. 261; Ihle, 1918, pp. 245, 303, 312; Zarenkov, 1969, p. 24, figs. 5(4); Serene and Soh, 1976, p. 11, fig. 8, pl. II, figs. A—B.

Nursilia dentata: Stimpson, 1858, p. 162; 1907, pp. 160—161 (not Bell, 1855).

Nursilia tonsor: Takeda and Miyake, 1972, pp. 74—75, figs. 1, D—F, pl. 3, fig. 2; Sakai, 1976, p. 90 (not Alcock, 1896 = *Nursilia sinica* sp. nov.).

1♂, 3♀ (2 抱卵), 南海(北纬 22°15′—18°, 东经 116°—110°), 底质泥质砂, 水深 56—102 米, 1959 年 1—2 月; 5♂, 41♀ (9 抱卵), 南海(北纬 22°—18°, 东经 116°—110°30′), 底质粉砂、泥, 水深 40—120 米, 1959 年 4—5 月; 3♂, 36♀ (15 抱卵), 南海(北纬 22°—17°30′, 东经 115°30′—109°), 底质砂质泥、软泥, 水深 73—108 米, 1959 年 7 月; 1♂, 28♀ (8 抱卵), 南海(北纬 18°30′—22°, 东经 110°15′—115°30′), 底质泥质砂, 水深 39—94 米, 1959 年 10—12 月; 4♂, 27♀ (20 抱卵), 南海(北纬 22°—17°45′, 东经 108°30′—116°), 底质泥沙, 水深 62—108 米, 1960 年 1—2 月; 4♂, 40♀ (23 抱卵), 南海(北纬 22°—17°30′, 东经 109°30′—116°), 底质泥质砂、软泥, 水深 51—115 米, 1960 年 4—5 月。

头胸甲宽大于长, 表面有不规则的蘑菇状突起及细颗粒。额突出, 前缘由较深的中央沟分成两叶, 每叶侧缘有一斜脊, 此脊后方又有一条中央纵脊, 它的后部有一大刺(长约 2 毫米)及 2 小刺, 有时第 1 刺缺(或不明显)。额后至胃、肝区有一斜脊, 脊末端有 2 对小刺, 前、后排列, 后对小刺较小, 有时不明显。胃区微凹, 具 2 对小刺, 位于中央两侧, 前、后排列, 在各发育阶段的标本中, 这些小刺相当稳定, 即使幼小标本仍清晰可辨。心区每侧有一斜脊, 经鳃区与由侧缘中部引出的一条斜脊交叉, 整个形状如“M”, 共具 9—10 锐刺(包括侧缘末刺及中央第 1 刺在内)。侧缘共具 10 锐刺。

第 3 颚足外肢新月形。内肢长节短于座节, 雄性座节有一不明显的纵脊, 雌者座、长

节近中央具一明显的纵脊及密毛,其长节背面基半部有一圆方形突起,其末端连着腕节,末3节稍粗短。颊区前端窄,钝圆形。

螯足表面密具蘑菇状突起,疏密分布不均。长节瘦长。腕节小。掌节外缘较直,末端背、腹面各有一枚小突起,内缘膨肿。指甚长,呈镰刀状,边缘薄锐且有细锯齿,内缘各有锯齿,其中有数齿较锐长。

雄性腹部分为4节:前2节小,第3节最大(第3—5节愈合),末端中央具一枚突起。尾节略呈长三角形。第1腹肢直立,末端分两支:外支较短小,简单;内支长,末端向内弯,基部及末部外侧有刺毛。

本种栖息于水深33—202米的泥质砂或软泥底。在调查中共采获85号194个标本,其中雌体占绝对优势,在173个个体中,73个抱卵,这种小蟹一年四季均可产卵,以4月为盛期。

标本测量(毫米)	头胸甲长度	头胸甲宽度
雄	5.9	6.1
雌	7.5	8.5

模式标本采集地 安达曼海。

地理分布 南海中国近海;日本,斯里兰卡,安达曼海。

中华仿五角蟹(新种) *Nursilia sinica* sp. nov.(图版 II)

Nursilia dentata: Takeda and Miyake, 1970, p. 222, fig.6 c. (not Bell, 1855).

Nursilia tonsor: Takeda and Miyake, 1972, pp. 74—75, fig. 1, D—F, pl. 3, fig.2; Sakai, 1976, p. 90. (not Alcock, 1896).

正模♀,配模♂,标本号K 123 B-100,南海(北纬19°30′、东经112°30′),底质粗砂软泥,水深174米,1960年2月8日。

副模1♀,标本号V 466 B-21,东海(北纬29°30′、东经125°30′),底质细砂,水深100米,1975年10月9日;1♀,标本号V 469 B-95,东海(北纬27°30′、东经126°),底质细砂,水深162米,1975年10月10日。

头胸甲宽大于长,表面密具细颗粒及蘑菇状突起。额隆起,分两叶,表面中央凹,额后边缘有条斜脊,胃、肝区斜脊及纵脊都较显著。纵脊后部具大小钝刺各一枚。“M”脊共具7枚钝刺(包括侧缘末刺及纵脊后部第1刺在内)。胃区深凹,具一对小刺。胃、肝区斜脊后有一钝刺。雌者后鳃区具一斜脊2—3枚粗颗粒;雄者的颗粒不明显。侧缘具大小钝刺12枚。后缘向后突出呈一斜面,中央具一大的突起,两边各具一半圆形突起。

第3颚足腹面具蘑菇状突起及细颗粒,座、长节深凹,雌体长节基部具一斜行颗粒隆脊,座节近中央的颗粒隆脊甚高,其内侧有一较低位的薄脊,具密毛,长节背面基半部有一枚圆锥形突起,末端紧接着腕节基部,末3节瘦长。颊区末端宽,中央由一缺刻分成两钝齿。

螯足长节有细颗粒,边缘有蘑菇状突起。腕节外缘颗粒较粗。掌膨肿,外侧低凹,呈薄脊片,边缘有细锯齿,背、腹面的末端有1—2枚突起,后者的突起较大。指长约为掌的2倍,边缘薄锐,有细锯齿,两指末端交叉,内缘均有细锯齿,其中有数枚锐齿。

步足瘦长,长节圆柱形,表面有细颗粒,后缘有锐齿。腕大于掌,指节呈披针状,这两节的表面均有细颗粒,前缘有锐齿,后缘有短刚毛。

两性腹部均分为4节；雄者腹部三角形，第6节末端有一中央突起；雌腹卵圆形。雄性第1腹肢末端分两支，长度相等。

标本测量(毫米)	头胸甲长度	头胸甲宽度
正模(♀)	7.0	7.8
配模(♂)	6.0	6.6

附注 头胸甲表面密具细颗粒及蘑菇状突起在图中未画全。

讨论 Takeda and Miyake 的 *Nursilia dentata* (p. 222, fig.6, E. China Sea. 126 m deep, 1970), 和 *Nursilia tonsor* (pp. 74—75, fig.1 D—F, pl.3, fig.2, 1972.) 先后用了两个种名,其描述及图均与我们的标本相符。他们的标本实际上是与我们的新种 *Nursilia sinica* sp. nov. 为同一个种。现将已知两种与新种的主要区别列于下表。

特 征	钝齿仿五角蟹 <i>Nursilia dentata</i> Bell, 1855	修容仿五角蟹 <i>Nursilia tonsor</i> Alcock, 1896	中华仿五角蟹 <i>Nursilia, sinica</i> sp. nov.
1. 头胸甲	前侧缘齿钝,胃区微凹,具2对小刺,纵脊后部有3枚大刺	前侧缘齿锐,胃区微凹,具2对小刺,纵脊后部有1个大刺及2枚小刺	前侧缘齿锐,胃区深凹,具1对小刺,纵脊后部有大小刺共2枚
2. 螯足掌部外缘	无薄脊片	无薄脊片	有薄脊片
3. 第3颚足	不详	长节背面基半部有一枚圆方形突起,雌者座、长节腹面微凹	长节背面基半部有一枚圆锥形突起,雌者座、长节腹面深凹
4. 雄性第1腹肢	末端分两支:内支长,外支短,末端向外	末端分两支:内支长,外支短,末端稍向内弯	末端分两支:长度相等
5. 颊区末端	不详	窄,钝圆形,不分齿	宽,分2钝齿

地理分布 东海、南海中国近海。

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ON THE GENUS *NURSILIA* (CRUSTACEA, DECAPODA: LEUCOSIIDAE) OF CHINESE WATERS *

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ABSTRACT

Nursilia sinica sp. nov.

Holotype ♀, allotype ♂ (K 123B-100), South China Sea (19°30'N, 112°30'E.) bottom coarse sand with mud, depth 174 m, 1960, II. 8; Paratype 1♀ (V466B-21), East China Sea (29°30'N, 125°30'E.), bottom fine sand, depth 100 m, 1975, X. 9; 1♀ (V469B-95), East China Sea (27°30'N, 126°E.), bottom fine sand, depth 162 m, 1975, X. 10.

Carapace broader than long, surface with small granules and mushroom-shaped tubercles. Front elevated and bilobed, its median surface depressed, with an oblique posterior ridge on the frontal border. Gastro-hepatic ridge, longitudinal ridge and "M" shaped ridge are marked. There are two obtuse spines one large and one small, on the posterior part of the longitudinal ridge. "M" shaped ridge with seven obtuse spines (including last spine of the lateral border and first spine on the longitudinal ridge). Gastric region deeply depressed, with a pair of small spines. There is an obtuse spine behind the oblique gastro-hepatic ridge. Posterior branchial region of the female with an oblique ridge, 2—3 coarse granules, which in the male are obscure. There

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are twelve obtuse teeth of different sizes on the lateral border. The posterior border forms an oblique facet, with a large tubercle at centre, each side with a semicircular tubercle.

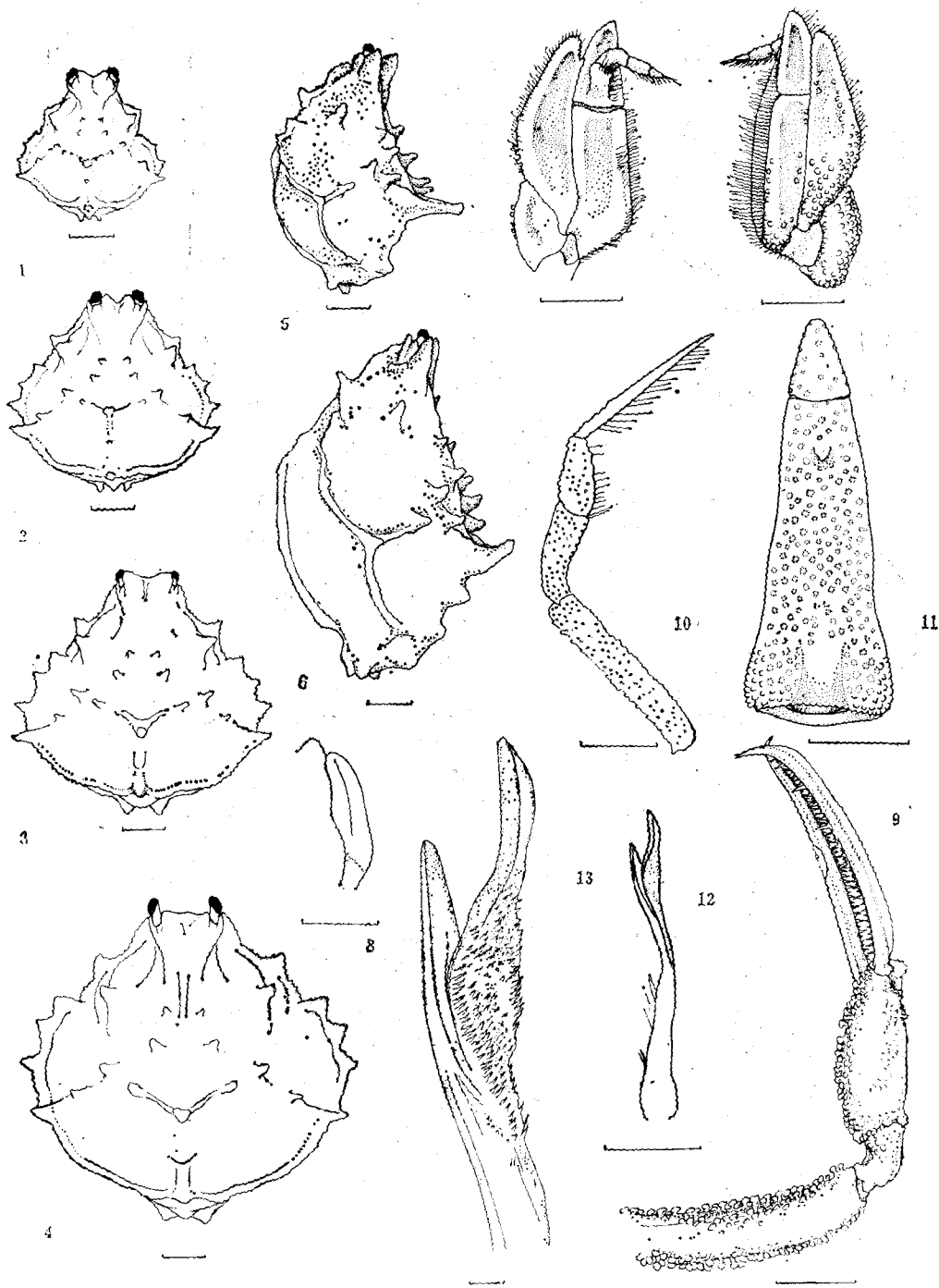
Ventral surface of third maxilliped covered with mushroom-shaped tubercles and small granules. Ischio-merus segments deeply depressed. The base of merus of female with an oblique ridge and a high longitudinal ridge at the middle of ischium. Inner lateral face of the ridge has a lower thin ridge with dense hairs. On dorsal surface the merus half with a conical tubercle, its extremity joins with the base of carpus. The last three segments slender. The tip of pterygostomial region of carapace is broad, the middle is divided into two blunt teeth by a notch.

The merus of chelipeds covered with small granules and mushroomshaped tubercles on the borders. The exterior border of carpus with coarser granules. Palm swollen, with the exterior lateral surface slightly depressed, forming cristiform lamina with fine denticles, tip with one or two tubercles on dorsal and ventral surface, the tubercle(s) on the ventral surface being larger. Fingers twice as long as palm, its borders thin, with denticles. The tips of fingers are crossed, inner border with sharp denticles.

Pereiopods slender, merus cylindrical. Its surface with small granules, posterior borders with sharp teeth. Carpus longer than propodus, the two segments armed with small granules but anterior border with sharp teeth, posterior border with short setae.

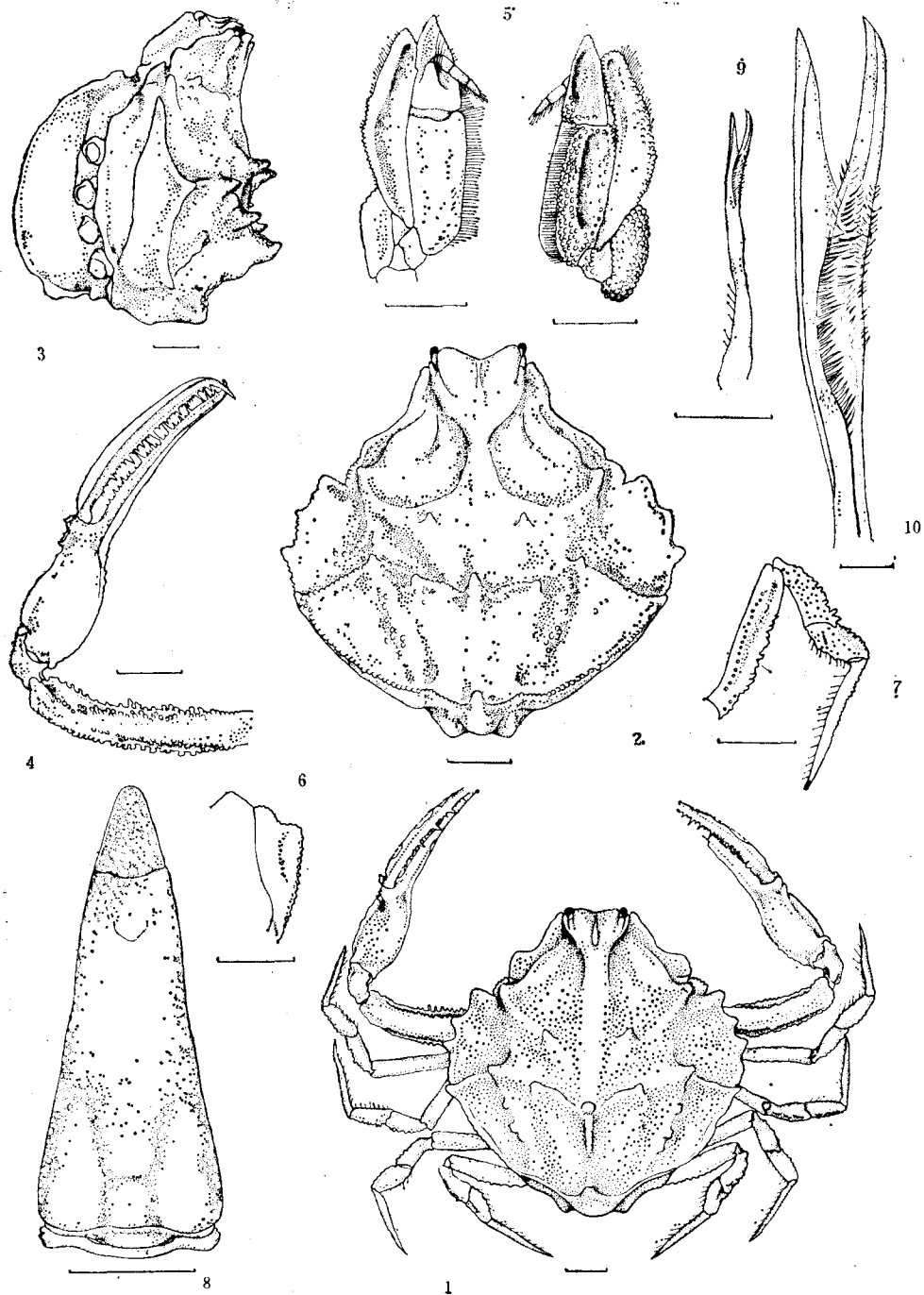
Abdomen with the third to sixth terga fused together in both sexes: male abdomen triangular, having a median tubercle near the distal end of the sixth segment; female abdomen oval, with small granules. First male pleopod almost straight, tip equally bifid.

This new species may easily be distinguished from the two known species in the gastric region of the carapace being deeply depressed, in having a pair of small spines, in the posterior part of the longitudinal ridge being armed with two obtuse spines, one large and one small, in having cristiform lamina at the outer border of the palm of the chelipeds and in the male first pleopod being equally bifid at the tip.



修容仿五角蟹 *Nursilia tonsor* Alcock, 1896

1—6.头胸甲； 7.第3颚足； 8.颊区前端； 9.螯足； 10.第4步足； 11.雄性腹部； 12—13.雄性第1腹肢。(比例尺除13为0.1毫米外,均为1毫米)



中华仿五角蟹(新种) *Nursilia sinica* sp. nov.

1. 正模雌性外形; 2. 配模雄性头胸甲; 3. 雌性头胸甲侧面观; 4. 螯足; 5. 第3颚足; 6. 颊区前端;
7. 第4步足; 8. 雄性腹部; 9—10. 雄性第1腹肢。 (比例尺除10为0.1毫米外,均为1毫米)