

南海口足类(甲壳纲)一新属及二新种*

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在整理鉴定南海口足类标本中,发现构造特殊的两个新种,标本采自潮下带较深水域(50—260米),形态特征与已描述的属显著不同,经研究确认是一个新属,命名为华虾蛄属 *Sinosquilla* gen. nov. 隶指虾蛄科 *Gonodactylidae*, 为假虾蛄组合 *Pseudosquilla* complex 的成员。其模式种为华虾蛄(新种) *Sinosquilla sinica* sp. nov. 另一近缘种为多刺华虾蛄(新种) *S. hispida* sp. nov. 以下为新属及新种的描述。

新种的模式标本保存于中国科学院海洋研究所(青岛)。

华虾蛄属(新属) *Sinosquilla* gen. nov.

体平扁,表面光滑。头胸甲宽而短,前侧角圆形,颈沟不跨越背面,侧板后有宽的边缘脊,不向前延伸。额角板为强大的粗刺,基部宽,末端尖,有中央纵脊。第一触角柄第一节基部外侧有一叶片状突起(图1),其边缘及背腹面具羽状长毛。第二触角原肢无乳突,腹面有一刺。大颚有触须。胸部第5—8节每节最多有一对侧脊。颚足具5上肢。掠肢细,指节多于7齿(8—9齿);掌节上缘全长栉状,基部内侧具3活动刺;长节纤细,腹缘全长有沟。步足内肢2节,末节稍宽而扁。

腹部宽而平扁,各节间结合松散,第1—5节仅有细弱的边缘脊,后侧角圆。第5、6节背而后缘有许多尖刺,第6节无亚中央脊,背面有许多小刺。尾节宽短,背面布满小刺,排成不规则的纵列,中央脊明显,其后部或全部破碎为小刺。尾节后缘3对边缘齿:亚中央齿并列,有活动顶刺,无亚中央小齿;间齿宽,间小齿3个,其中外侧2个带有尖的腹刺,最外侧者较大而位低,呈长刺状,其背面有一纵脊,自侧面观为叶片状,侧齿尖,侧小齿2个,其构造分别与中、外间小齿相同。尾肢原肢的腹突起末端为2强刺,内刺较长。

模式种 华虾蛄(新种) *Sinosquilla sinica* sp. nov.

性别 阴性

名称来源 拉丁字 *Sino-*, 中华 + *Squilla*, 属名。以模式产地而命名。

附记: 本新属隶属于指虾蛄科 *Gonodactylidae* 中的假虾蛄 *Pseudosquilla* 组合。该组合已知有7属,其中体平扁、掠肢指节多于7齿者除本新属外,只有宽虾蛄属 *Eurysquilla* Manning, 1963 和拟宽虾蛄属 *Eurysquilloides* Manning, 1963 两属。就体形构造、宽而短的尾节、松散连接的腹部体节及掠肢指节多于7齿等特征来看,本新属与宽虾蛄属最为近似,但本新属额角为强大的长刺,具中央纵脊;第一触角柄第一节基部外侧有带羽状长毛的叶片状突起;第二触角无乳突而有腹刺;尾节背面有许多小刺;间小齿3个,侧小齿2个,其中各有2个带有向后伸的腹刺,最外侧的一个背面具叶片状纵脊(腹刺共8个,其中4个在更低的水平面上)等特征均与宽虾蛄属不同,容易区别。

本属外形亦似琴虾蛄属 *Lysiosquilla* Fabricius 及其近缘属,但本属第3—5颚足掌节腹缘无小珠突,与前者显著不同。

本新属所具发达的长刺状额角、带侧叶突的第一触角柄和尾节后缘形状特殊的间小齿和侧小齿,是独有的特征,极易与其他属区别。

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华虾蛄(新种) *Sinosquilla sinica* sp. nov. (图 1: 1—6;图版 I: 1—3)

体宽而平扁,体长约为第 5 腹节宽的 5 倍左右,表面光滑,各节结合松弛。

头胸甲宽短,最大宽度为中央长度的 $1\frac{1}{2}$ 倍(最宽处在中部附近),前侧角圆形,侧板后缘有宽而低的脊,该脊不向内前方弯曲延伸,此外再无其他脊;颈沟只见于胃沟附近,不跨越背部。额角板刺状,很强大,显著超过头胸长度的 $\frac{1}{2}$,基部宽,向末端渐细,伸至眼柄或角膜末端,约在第一触角柄第 2 节 $\frac{1}{3}$ 至 $\frac{2}{3}$ 处,其背面有中央纵脊和侧缘脊,中央纵脊基部较宽。

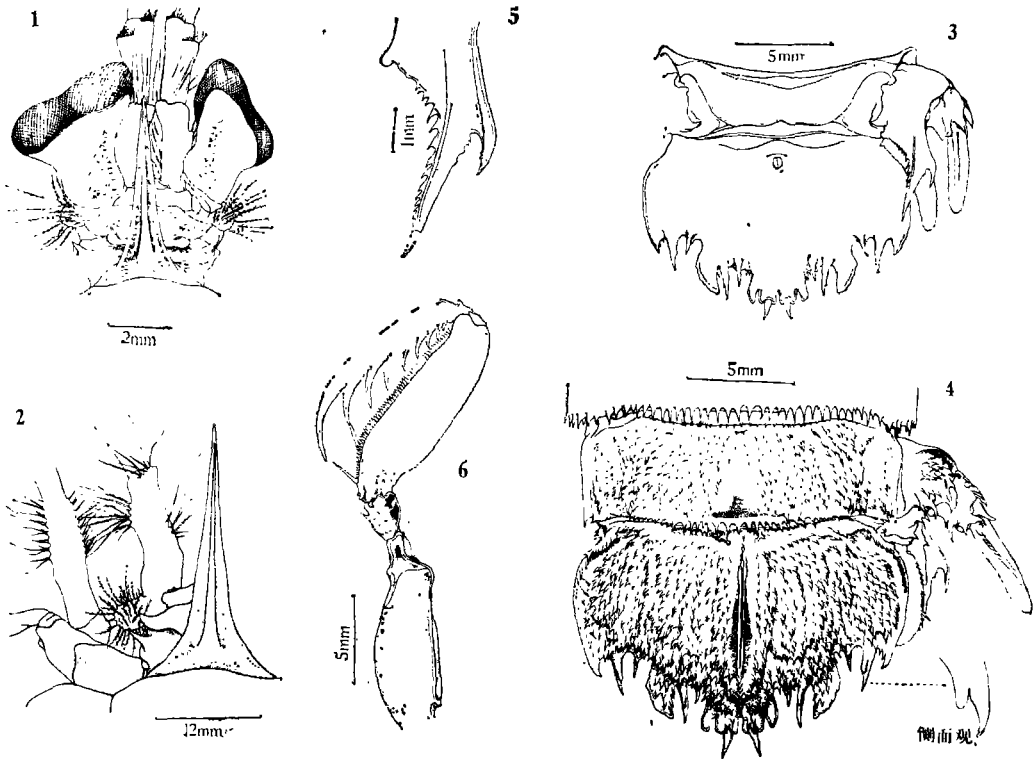


图 1 华虾蛄(新属及新种)正模式标本 *Sinosquilla sinica* gen. & sp. nov. (Holotype)

1. 眼及额角板; 2. 另一雌性标本头部前端(眼已除去), 示第一触角柄基部的叶状突起; 3, 4. 第 6 腹节, 尾节和尾肢, 背面及腹面观; 5. 尾肢基节腹突起, 腹面观; 6. 掠肢, 外面观。

眼大,角膜双叶,显著宽于眼柄,斜接于柄上。眼节背面的鳞片突起较宽,外侧形成尖齿,向前侧伸。眼节腹面中央具一尖刺。

第一触角柄第一节基部向外侧伸出圆叶片状突起,其表面有羽状长毛,这一特征与其他属显然不同。触角节背面两侧各有一向前侧斜伸的尖刺。

第二触角原肢基节腹面有一尖刺,位置在鞭柄的基部,此外背腹两面别无其他乳突。大颚具有 2 节组成的触须。

第 1—5 胸足都具叶状上肢,第 3—5 胸足掌节腹缘无小珠状突。掠肢较小,长节细短,腕节背缘脊末端形成尖刺,掌节前缘全长有栉状小齿,基部内面有 3 活动刺,指节具 9 (或 8) 尖齿,基部外缘有一钝齿和缺刻。

步足较粗,基节后外缘具一尖刺,内肢 2 节,末节较宽而圆,特别是第一对者更宽。

第 5—7 胸节侧缘圆形,第 8 节无腹突起。

第 1—5 腹节仅侧缘有不显著的脊(低而窄);第 1 腹节前侧角有活动片(节),第 5、6 腹节后缘有许多尖刺,第 6 节背面满布以小刺,无亚中央脊,背面中央小区较高,光滑无刺。

尾节宽而短,长约为宽的 3/5 强,背面有明显的中央脊,脊的基部及末端有几个尖刺,边缘齿 3 对:亚中央齿并列,中间仅有窄缝,末端为活动顶刺,无亚中央小齿;间齿很宽大,叶状,背面有很小的尖刺;侧齿尖,稍向内弯。间小齿 3 个:内侧者为叶状钝齿,与亚中央齿相连,也可视为亚中央齿的一个分支;中央间小齿三角形,显著短小,边缘有脊,其下为尖的短刺,自尾节腹面伸出,末端上弯,自背面观与上述三角形小齿重叠;外侧者为长大的尖刺,也自腹面伸出,但在更低的水平,此刺的背面有一纵脊,自侧面观为圆叶状。侧小齿 2 个,其构造、形状分别与第 2、第 3 间小齿相同。尾节背面布满无数小刺,其中在中央脊两侧的刺排成 2 或 3 不很整齐的纵列,在边缘齿前方者排成 4 或 5 纵列;尾节侧缘脊的前部也有一列小刺,尾节腹面光滑无脊。

尾肢基节背面有许多小刺,近后缘处的刺较大;外肢基节内侧面也有几个尖刺,外缘活动刺 5—6 个,末刺大而钝,腹面后外侧角具一长刺,末端尖,末节中央脊的前半段有一列小尖刺;内肢背面外缘脊上有许多微小尖刺。基节腹突起内刺很长,内缘有尖刺十余个,外缘近基部有微小刺 1—3 个;基节腹突起外刺短小,尖锐,内缘中部具 1—3 个小刺,外缘光滑无刺。

颜色:身体背面带明显的黑褐色云纹。头胸甲侧板中部和后角各有一大黑斑,前部近胃沟处有一较小黑斑。额角、触角节、眼节及眼柄背面、掠肢长节末端及腕节上都有黑褐色斑。腹部第 6 节背面中央及尾节中央脊上亦具黑斑。

正模式标本 1 ♀,全长 70mm,标本号 K44B-55,1959 年 4 月 24 日采自南海,北纬 21°00′,东经 113°30′,水深 58 米,底质:砂质泥。

副模式标本 1 ♀,全长 59mm,标本号 S13B-1,1959 年 3 月 17 日采自南海,北纬 21°00′,东经 114°00′,水深 82.5 米,底质粗粉砂。

1 ♀,全长 47mm,标本号 N96B-45,1959 年 10 月 29 日采自南海,北纬 19°30′,东经 115°15′,水深 89 米,底质:细砂。

其他标本:2 ♂♂、2 ♀♀,全长 36—61mm,1959 年 3—7 月采自南海,北纬 20°00′—21°45′,东经 112°00′—115°00′,水深 83.7—96.5 米,底质:粉砂—中砂。

多刺华虾蛄(新种) *Sinosquilla hispida* sp. nov. (图 2: 1—3; 图版 I: 4—6)

体形、头胸甲和胸腹部主要特征及眼、第一触角柄、掠肢(指节 9 齿)、第五腹节后缘刺等都与华虾蛄(新种) *Sinosquilla sinica* sp. nov. 相同,但本种第 6 腹节和尾节背面的螯刺比前种显著多而大,第 6 腹节背面中央后部光滑小区有 3 个小刺;特别是尾节中央脊全无,代之以纵列的强刺,侧脊除末端刺外,脊背面有一列尖刺(约 6—7 个),尾节后缘的亚中央齿、间齿和侧齿都较宽而钝,呈片状,其背面小刺较大尖锐,其侧缘及后缘亦有强尖刺,其中间齿、侧齿和最内侧间小齿的外缘尖刺尤其多而强。最外侧间小齿和侧小齿的背面皆具有垂直圆叶,与前种相似但末端稍尖,由于其位置较低(在腹面)又为尾节后缘

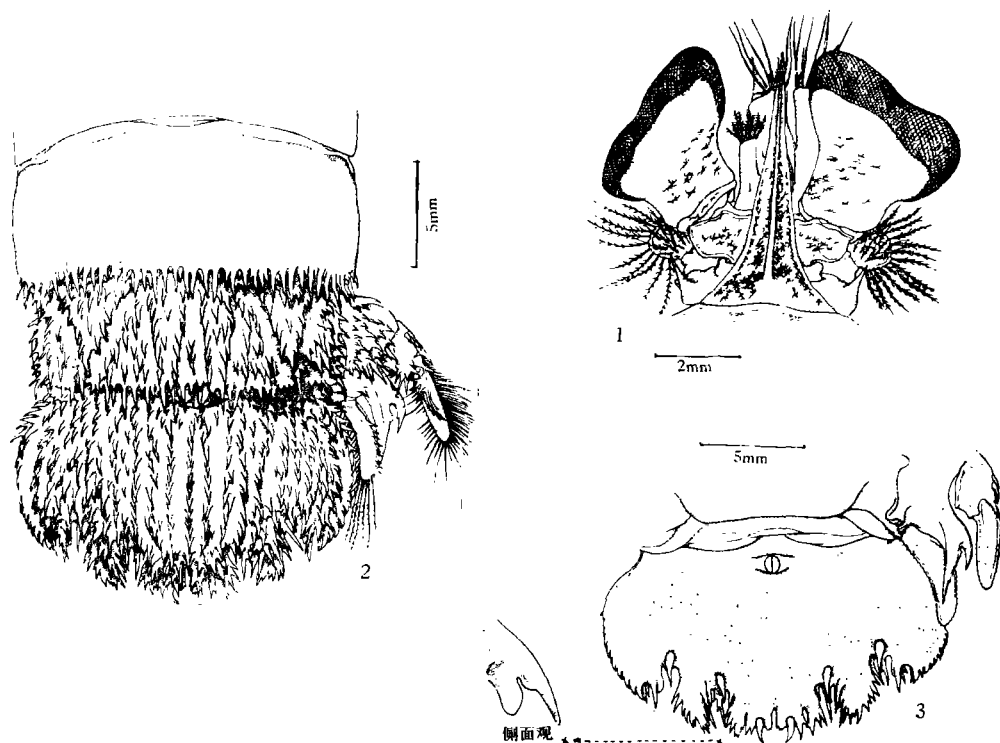


图2 多刺华虾蛄(新种)正模式标本 ♀ *Sinosquilla hispida* sp. nov. (Holotype)

1.眼及额角板; 2,3.第6腹节尾节和尾肢,背面及腹面观。

及各边缘齿上的长刺所遮蔽,故自尾节背面不易看到。

尾肢的内肢和外肢末节较短小,外肢末节背面纵脊全长具刺约10个,刺稍长;基节腹突起背面近外缘处具2个小刺,内缘光滑无刺,与前种迥然不同。

颜色: 色斑与前种基本相似,但较浅,特别是腹部及尾节色斑很淡。

正模式标本 1♀,全长72mm,标本号K31B-34,1959年4月19日采自南海,北纬 $19^{\circ}30'$,东经 $112^{\circ}30'$,水深260米,底质:粗粉砂。

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DISCRIPTION OF A NEW GENUS AND TWO NEW SPECIES OF STOMATOPOD CRUSTACEA FROM THE SOUTH CHINA SEA*

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ABSTRACT

While studying the collection of stomatopods from the South China Sea, we came across some specimens with characteristics markedly different from all the other known stomatopod genera or species. A detailed examination revealed that they represent two distinct species belonging to a new genus, the descriptions of which are given below.

Both the holotypes and paratypes of these two new species are deposited in the Institute of Oceanology, Academia Sinica, Qingdao, China.

Genus *Sinosquilla* gen. nov.

Diagnosis Body depressed, loosely articulated, surface smooth. Carapace broad and short, antero-lateral angle broadly rounded; cervical groove not extending across the dorsum; marginal carina on posterior portion of lateral plates not projecting forward.

Eyes large, cornea bilobed, broader than stalk. Rostral plate spine-shaped, large and stout, basal end broad, distal end acute, with median carina. First segment of antennular peduncle with a basal lateral lobe, its margin, dorsal and ventral side with long plumose hairs; antennular protopod without papillate projection, but with ventral spine. Mandible with palp. Maxilliped (thoracopod) with 5 epipods. Raptorial claw slender, dactylus with more than 7 (8 or 9) teeth, propodus pectinated throughout its length.

Abdomen broad and depressed, first 5 somites only with weak marginal carinae, postero-lateral angle rounded, posterior margin of the dorsal side of 4th and 5th abdominal somites with many spines, 6th somite without submedian carina, dorsal surface with many small spines. Telson short and broad, covered with numerous small and curved spinules arranged in irregular longitudinal row, median carina distinct, its posterior portion only or its entire surface broken up into spinules. Three pairs of posterior marginal teeth: submedian teeth parallel, with movable apices, submedian denticles absent; intermediate teeth broad, with 3 intermediate denticles, the outer two of which are provided with sharply pointed ventral spine, the outermost one projecting out from the ventral side is the largest and has a dorsal longitudinal carina which is leaf-shaped in side view; lateral teeth sharply pointed and curved inwards, with 2 lateral denticles very similar in shape to the outer two intermediate denticles. Basal prolongation of uropod terminating in 2 spines, the inner

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one longer, the outer margin of inner spine and inner margin of outer spine armed each with 1—3 minute spinules.

Type species *Sinosquilla sinica* sp. nov.

Gender feminine.

Etymology The generic name is derived from the Latin *Sino*-, China, the type locality, and the generic name *Squilla*.

Remarks This new genus, though in some general features resembles the members of the family Lysiosquillidae, belongs to the *Pseudosquilla* complex of the family Gonodactylidae. It is closely allied to the genus *Eurysquilla*, but may easily be distinguished from the latter by the stout spine-shaped, longitudinally carinated rostrum, by having a lateral lobe on the outer edge of the basal portion of the first antennular segment and by the armature of the telson.

Sinosquilla sinica sp. nov. (Plate I: figs. 1—3; text-fig. 1)

Holotype 1 ♀, 70 mm; No. K44B-55; South China Sea, 21°00'N, 113°30'E; depth, 58 m; bottom, sandy mud; 24, Apr. 1959.

Paratypes 1 ♂, 59 mm; No. S13B-1; South China Sea, 21°00'N, 114°00'E; depth, 82.5 m; bottom, coarse silt; 17, March, 1959. 1 ♀, 47 mm; No. N96B-45; South China Sea, 19°30'N, 111°15'E; depth, 89 m; bottom, medium sand; 29, Oct. 1959.

Diagnosis Raptorial dactylus with 9 (rarely 8) teeth. Dorsal surface of 6th abdominal somite and telson covered with numerous curved small spinules. The posterior part of the median line of 6th abdominal somite smooth; marginal carinae sharp, only spined posteriorly. Telson with distinct median carina which has several spinules in its anterior and posterior part; anterior half of marginal carinae with acute spinules; dorsal surface of submedian and intermediate teeth with several spinules, lateral teeth without spinule. Distal segment of exopod of uropod long, basal half of dorsal median longitudinal carina with several spinules. Basal prolongation of uropod with more than 10 spines on its inner margin; outer margin, smooth.

Distribution Known only from the type locality, South China Sea, in depths between 58—96.5 m.

Sinosquilla hispida sp. nov. (Plate I: figs. 4—6; text-fig. 2).

Holotype 1 ♀, 72 mm; No. K31B-34; South China Sea, 19°30'N, 112°30'E; depth, 260 m; bottom, coarse silt; 19, Apr. 1959.

Diagnosis Raptorial dactylus with 9 teeth. Dorsal surface of 6th abdominal somite and telson covered with numerous curved minute spines which are longer than those in *Sinosquilla sinica* sp. nov. The posterior half of dorsal median line of 6th abdominal somite with 3 spines; the marginal carinae spined throughout its length. Telson without median carina but with a longitudinal row of spines; the marginal carinae spined throughout its length; the dorsal surface and lateral margin of posterior marginal teeth and the innermost intermediate denticle are very spinous. Distal segment of exopod of uropod short, dorsal median longitudinal carina spined throughout its length (about 10 spines). The inner margin of basal prolongation of uropod without spines, near the outer margin of the dorsal side with 2 spinules.

Distribution Known only from the type locality.