

螺赢蜚科(甲壳动物:端足目)一新属、新种^{*}

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作者在鉴定 1994 年采自大连(北黄海)浅水和广东大亚湾的端足类(Amphipoda)标本中,发现了螺赢蜚科(Family Corophiidae)的一新属,即拟亮钩虾属 Genus *Paraphotis*, 报告如下。新属、新种的模式标本保存在中国科学院海洋研究所。

拟亮钩虾属(新属)Genus *Paraphotis* gen. nov.

模式种 中华拟亮钩虾 *Paraphotis sinensis* sp. nov.

体躯筒形,额角小,侧叶突出,无眼。触角短,彼此几乎等长,鞭短于柄;第 1 触角第 3 柄节短于第 1 柄节,无副鞭;第 2 触角第 4、5 柄节几乎等长。大颚触须 3 节,第 3 节短于第 2 节。腮足亚螯状,雄体第 2 腮足强壮,雌体第 2 腮足掌缘呈锯齿状。第 1 底节板小,第 2 底节板扩展,完全覆盖第 1 底节板;其余底节板深度小于长度,彼此稍连结。步足无强刺,5—7 步足指节具 1 背齿。第 4 胸节具 1 前向腹突。1—3 腹节后侧角钝圆。4—6 腹节分离。尾节完全、肉质,宽度大于长度。第 1、2 尾肢分支短于柄,无刺;第 3 尾肢单支,细长,分支长于柄,2 节。

本新属第 3 尾肢单支,第 2 尾肢两支发达。第 1 腮足亚螯状,第 3 腮足长节,腕节正常型,大颚触须 3 节,底节板中型,4—6 腹节分离等与 Genus *Darcothoe*, Genus *Microphotis*, Genus *Micrprotopus* 和 Genus *Cheiriphotis* 等属相似。新属不具副鞭,与 *Decothoe*, *Micriphotis* 和 *Cheiriphotis* 不同。本新属第 1 底节板小而不扩展,第 1 尾肢柄无腹末端突和第 3 尾肢单支并分支长于柄,具小的第 2 节与 *Micriphotis* 不同。

中华拟亮钩虾(新种)*Paraphotix sinensis* sp. nov. (图 1, 2)

正模式标本 95-CA-015。雄体,体长 3.7mm,1994 年采自大连(北黄海)浅水。

副模式标本 95-CA-016, 2♂♂, 体长分别为 3.8mm 和 3.0mm; 1♀, 仅保存有腮足(在玻片内)。1994 年采自广东大亚湾。

体躯筒形,背腹稍平扁。头部额角小,侧头叶尖突,无眼。第 1 胸节较短,第 4 胸节具 1 前向腹突。1—3 腹节后侧角钝圆,4—6 腹节分离,长度短于宽度。尾节完全、肉质,长度短于宽度,每末侧角具 1 刺,背面具 2 短刺。

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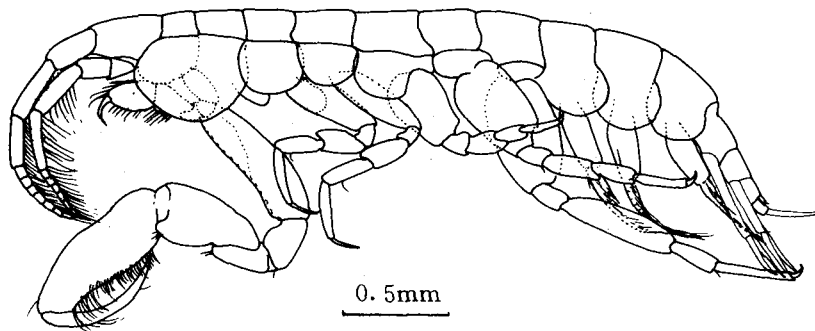


图1 中华拟亮钩虾(新种)*Paraphotis sinensis* sp. nov. 外形

两触角几乎等长,短,约为体长的 $1/3$ 。第1触角柄节长于鞭,腹缘具长刚毛,第1柄节较粗壮,第2柄节稍长,第3柄节短于第1柄节,鞭6—7节。第2触角第3柄节短,4,5柄节几乎等长,腹缘具长刚毛,鞭短于柄,5—7节。

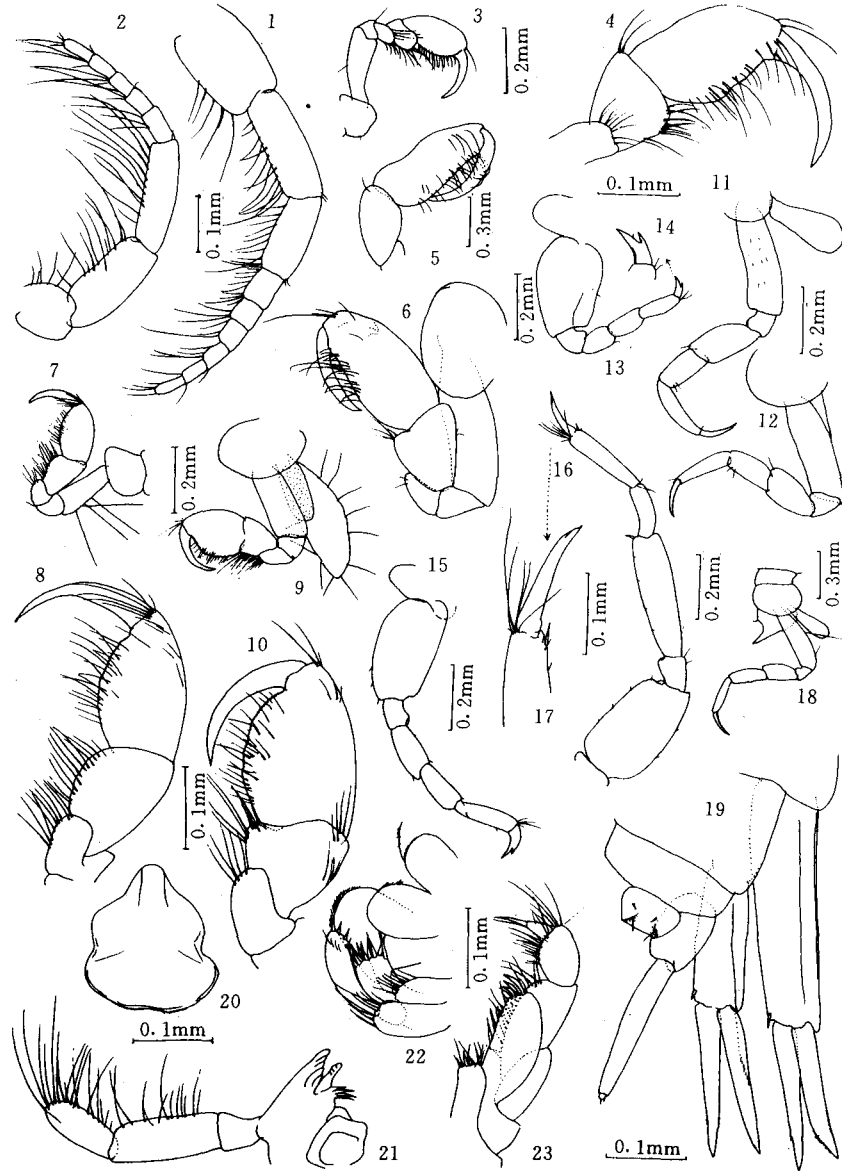
上唇前缘中间微凹。大颚臼齿发达,切齿5齿;动颚片4齿;刺排4刺;触须强壮,3节,第1节短,第2节较长,第3节短于第2节,具有长刚毛。下唇具内叶,外叶峰圆,侧角尖。小颚内板小,无刚毛,外板具9刺,触须发达,2节,第2节末端具小刺和刚毛。第2小颚内、外板都具刚毛。颚足内板末端较平截,具刺和刚毛,外板腹缘具3个较宽刺;触须发达,4节,第2节较强壮,第3节卵圆,第4节具末端刺和腹缘1刚毛。

第1腮足短小,亚螯状,底节板小,完全被第2底节板覆盖,腕节三角形,掌节卵圆,掌缘呈锯齿状,无掌角刺和界限。指节较长,为掌节长度的 $3/4$ 。雄体第2腮足大而强壮,底节板扩展,卵圆形,完全覆盖第1底节板;基节长而粗壮;无长刚毛,座、长节较短;腕节为座、长节长度之和;掌节强壮,长大约为宽的2倍,腹缘光滑无刺,具长刚毛,内侧面也具长刚毛;指节镰刀状,约为掌节长度的 $2/3$,雌体第1腮足与雄体者相似,第2腮足亚螯状,与第1腮足相似,但较大,底节板大而覆盖小的第1底节板;掌节卵圆,掌缘呈锯齿状,无掌角,具长刚毛;指节爪形。

第3,4步足简单,彼此相似,但第3步足底节板稍大于第4底节板,指节稍长,爪状。第5—7步足彼此相似,少刺和刚毛,但依次加长。第5步足底节板两叶,基节宽阔,卵圆,后末角钝,掌节较长于长节与腕节,指节具1背齿。第6步足与第5步足相似。第7步足底节板最小,长节最长,腕节较短,指节爪状,末半背缘具1小齿。

第1尾肢柄约为分肢长度的1.7倍,内缘末端具1刺;内、外肢无刺,末半两缘具短刚毛,内肢稍长于外肢。第2尾肢分支几乎等于柄长,无刺,外缘具小栉齿。第3尾肢单肢,柄粗短,分支细长,为柄长的2倍,2节,第2节短小。

本新种分别采自北黄海(大连)和南海(大亚湾)浅水,说明该种在中国海有广泛的分布,栖息于泥沙底质。

图2 中华拟亮钩虾(新种)*Paraphotis sinensis* sp. nov.

1. 第1触角(♂); 2. 第2触角(♂); 3, 4. 第1腿足(♂); 5, 6. 第2腿足(♂); 7, 8. 第1腿足(♀); 9, 10. 第2腿足(♀); 11. 第3步足(♂); 12. 第4步足(♂); 13, 14. 第5步足(♂); 15. 第6步足(♂); 16, 17. 第7步足(♂); 18. 第4胸节腹突(♂); 19. 尾节及尾肢(♂); 20. 上唇; 21. 大颚; 22. 下唇, 小颚, 第2小颚; 23. 颚足

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**A NEW GENUS AND SPECIES OF THE FAMILY COROPHIIDAE
(CRUSTACEA: AMPHIPODA)***

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ABSTRACT

A new genus and species of the Family Corophiidae, Genus *Paraphotis* and *Paraphotis sinensis* sp. n., are described from China Sea. The materials were collected in shallow waters of Dalian (North Yellow Sea) and Daya Bay (South China Sea) in 1994.

The type specimens of the new genus and new species are deposited in the Institute of Oceanology Chinese Academy of Sciences.

Genus *Paraphotis* nov.

Type species: *Paraphotis sinensis* sp. n.

Body cylindrical, lateral cephalic lobe projected, rostrum small, eyes absent. Antennae short, subequal to each other, flagellum shorter than peduncle, antenna 1 with peduncular article 3 shorter than article 1, accessory flagellum absent. Antenna 2 with peduncular articles 4 and 5 subequal in length. Palp of mandible 3 — articulated, article 3 shorter than 2. Gnathopods subchelate. Male gnathopod 2 strong; palmar margin of female gnathopod 2 serrated. Coxa 1 small, coxa 2 dilated, wholly covered coxa 1; other coxae deeper than long, weakly contiguous. Pereopod without stout spines; dactylus of pereopods 5—7 with a dorsal tooth. Pereon 4 with a ventral protrusion. Postero—lateral angles of epimeral plates 1—3 rounded. Urosomes free. Telson entire, fleshy, wider than long. Ramus of uropods 1—2 shorter than peduncles, without spines. Uropod 3 uniramous, slender, ramus longer than peduncle, 2 — articulated, article 2 small.

This new genus is similar to *Darcothoe*, *Microphotis*, *Microprotopus* and *Cheiriphotis* by its urosomes being free, the inner ramus of uropod 2 being well developed and the uropod 3 being uniramous, by the mandibular palp being 3 — articulated and the gnathopod 1 being subchelate. The new genus differs from *Darcothoe*, *Microprotopus* and *Cheiriphotis* by being without accessory flagellum. The new genus is distinguished from *Micriphotis* by the coxa 1 being small, by the peduncle of uropod 1 being without ventrodistal process and the uropod 3 having a single ramus, longer than the peduncle and with a small second article.

Paraphotis sinensis sp. nov. (Fig. 1, 2)

Holotype: 95-CA-015. Male, body length 3.7 mm, collected from Dalian (North Yellow

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Sea) shallow waters, 1994.

Paratype: 95-CA-016. 2♂♂, large body length 3.8mm, female gnathopods only mounted on glass slide, collected from Daya Bay, Guangdong Province, 1994.

Body cylindrical, slightly depressed. Head with small rostrum, lateral cephalic lobe projected. Eyes absent. Pereon 1 short. Pereon 4 with a ventral protrusion. Postero-lateral angles of epimeral plates 1-3 round. Urosomes free, wider than long. Telson entire, fleshy, wider than long, lateral angles each with a spine, dorsal surface with two spines.

Antennae subequal in length, short, about 1/3 as long as body. Peduncle of antenna 1 longer than flagellum, ventral margin with long setae; peduncular article 1 strong, article 2 longer than other two articles, peduncular article 3 shorter than article 1; flagellum 6-7 articulated. Peduncular article 3 of antenna 2 short, peduncular article 4 subequal to peduncular article 5, ventral margin with long setae. Flagellum shorter than peduncle, 5-7 articulated.

Frontal margin of upper lip slightly concave, molar of mandible developed, incisor with 5 teeth, lacina mobilis with 4 denticles, spine row with 4 spines; palp strong, 3-articulated, article 1 short, article 2 longer, article 3 shorter than 2, with long setae. Lower lip with inner lobe, outer lobe with acute lateral angles. Inner plate of maxilla without setae, outer plate with 9 spines; palp developed, with 2 articles, distal end of article 2 with small spines and setae. Inner and outer plates of maxilla II with setae. Inner plate of maxilliped truncated distally, with setae and spines, ventral margin of outer plate with 3 broad short spines and setae, palp developed, 4-articulated, article 2 strong, article 3 oval, distal end of article 4 with spine and a ventral seta.

Gnathopods subchelate. Gnathopod 1 short and small; coxa 1 small, fully covered by coxa 2; carpus triangular, propodus oval, palmar margin serrated, without spines at palmar angle; dactylus long, about 3/4 as long as propodus. Male gnathopod 2 large and strong, coxa dilated, covered coxa 1, oval; basis long and stout, without long setae, ischium and merus short, carpus as long as combination of ischium and merus; propodus strong, about twice as long as wide, inner side and ventral margin with long setae, without palmar limit, spines at palmar angle; dactylus long, about 3/4 as long as propodus. Female gnathopod 2 subchelate, similar to gnathopod 1, but larger; coxa large, covered coxa 1, carpus triangular, propodus oval, palmar margin serrated, without palmar angle, with long setae; dactylus claw-shaped.

Pereopods 3 and 4 simple, similar to each other. Coxa of pereopod 3 larger than that of pereopod 4; dactylus long, claw-shaped. Pereopods 5-7 similar to each other, length progressively increased. Coxa 5 with two lobes, basis broad and oval, posterodistal angle blunt; propodus longer than merus and carpus; dactylus with a dorsal tooth. Pereopod 6 similar to pereopod 5. Coxa of pereopod 7 small, merus longest; carpus short; dactylus claw-shaped, dorsal margin with a small tooth.

Paduncle of uropod 1 about 1.7 times as long as ramus, inner latero-distal end with a small spine, rami without spines but lateral margin with setules on distal half. Inner ramus longer than outer ramus. Uropod 3 uniramous; peduncle thick and short; ramus slender, about twice as long as peduncle, with small second article.