

# 山东介甲类原狭蚌虫属一新种—— 东平原狭蚌虫\*

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**提要** 本文描述了分布在山东省东平湖畔淡水鱼苗培育池中的介甲目甲壳动物原狭蚌虫属的一个新种——东平原狭蚌虫 *Eoleptestheria dongpingensis* Hu, 1986<sup>1)</sup>。列表比较了本新种与相近种中国原狭蚌虫 *Eoleptestheria chinensis* Daday, 1923 的主要形态区别特征。附15幅新种形态图。模式标本保存在山东海洋学院水产系水产动物标本室。

1983年5月31日, 由山东省东平湖畔的淡水鱼种培育池中采获了许多介甲类甲壳动物成体标本。经鉴定, 系原狭蚌虫属的一个新种, 命名为东平原狭蚌虫 *Eoleptestheria dongpingensis* sp. nov.。

原狭蚌虫属 *Eoleptestheria* Daday de Deés, 1923 迄今全世界共记录过4种: 产于罗马尼亚2种 *E. inopinata* Daday, 1923 与 *E. variabilis* Botnariuc, 1947; 产于匈牙利1种 *E. ticinensis* (Balsamo-Crivelli, 1859); 产于中国1种 *E. chinensis* Daday, 1923。

**东平原狭蚌虫(新种) *Eoleptestheria dongpingensis* sp. nov.**(图1—15)

**正模标本** 6♂, 标本号 DP-8305311。壳长11.0—11.5 mm, 壳高6.2—7.0 mm。1983年5月31日采自山东省东平湖畔的淡水鱼种培育池。

**副模标本** 5♀ 标本号 DP-8305312。壳长9.5—10 mm, 壳高6.3—6.8 mm。采期、采集地同正模标本。

模式标本保存于山东海洋学院水产系水产动物标本室。

## 描 述

**1. 雄性** 壳长呈椭圆形, 半透明, 淡黄色。壳顶小, 位壳前部1/6处。壳前缘圆滑, 无前背角, 壳背缘隆起, 后背角清晰。生长线15—17条, 均匀分布于壳面。壳饰清楚, 呈密集的圆粒状。腹缘光滑无毛, 见图1:1, 2。壳长11.0—11.7 mm, 壳高6.2—7.1 mm, 壳宽3.4—3.7 mm。

**头部:** 额角宽圆, 端部有一细刺。眼上缘凹。后枕角小, 呈圆突状。头后凹宽浅, 见图1:3。第1触角细长, 为壳长的1/4, 生感觉乳突20个, 末端达第2触角内肢的第6节, 见图1:4。第2触角的基肢末部有环纹7条, 外侧缘有7个生刚毛的乳状突, 内、外肢都

\* 本文曾在中国甲壳动物学会1985年学术年会上宣读交流。

1) 张绪常同志协助采集标本, 特致谢意。

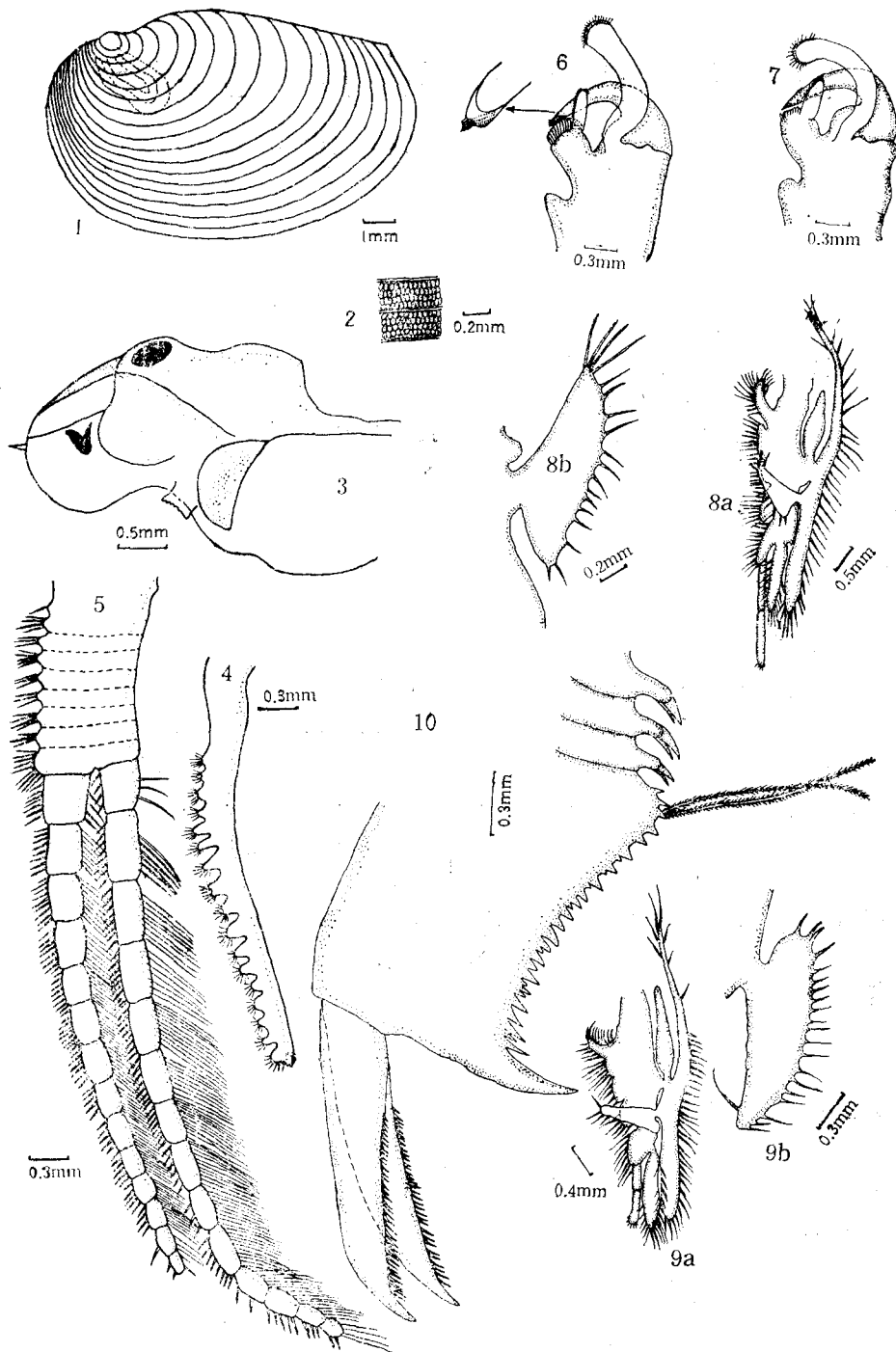


图1 东平原狭蚌虫(新种)(雄) *E. dongpingensis* sp. nov.

1. 壳的侧面观; 2. 壳饰; 3. 头部侧面观; 4. 第1触角; 5. 第2触角; 6. 第1执握肢端部; 7. 第2执握肢端部; 8a. 第3躯干肢, 8b. 第3躯干肢的三角形外肢片; 9a. 第5躯干肢, 9b. 第5躯干肢的三角形外肢片; 10. 尾节及末3体节的背缘侧面观。

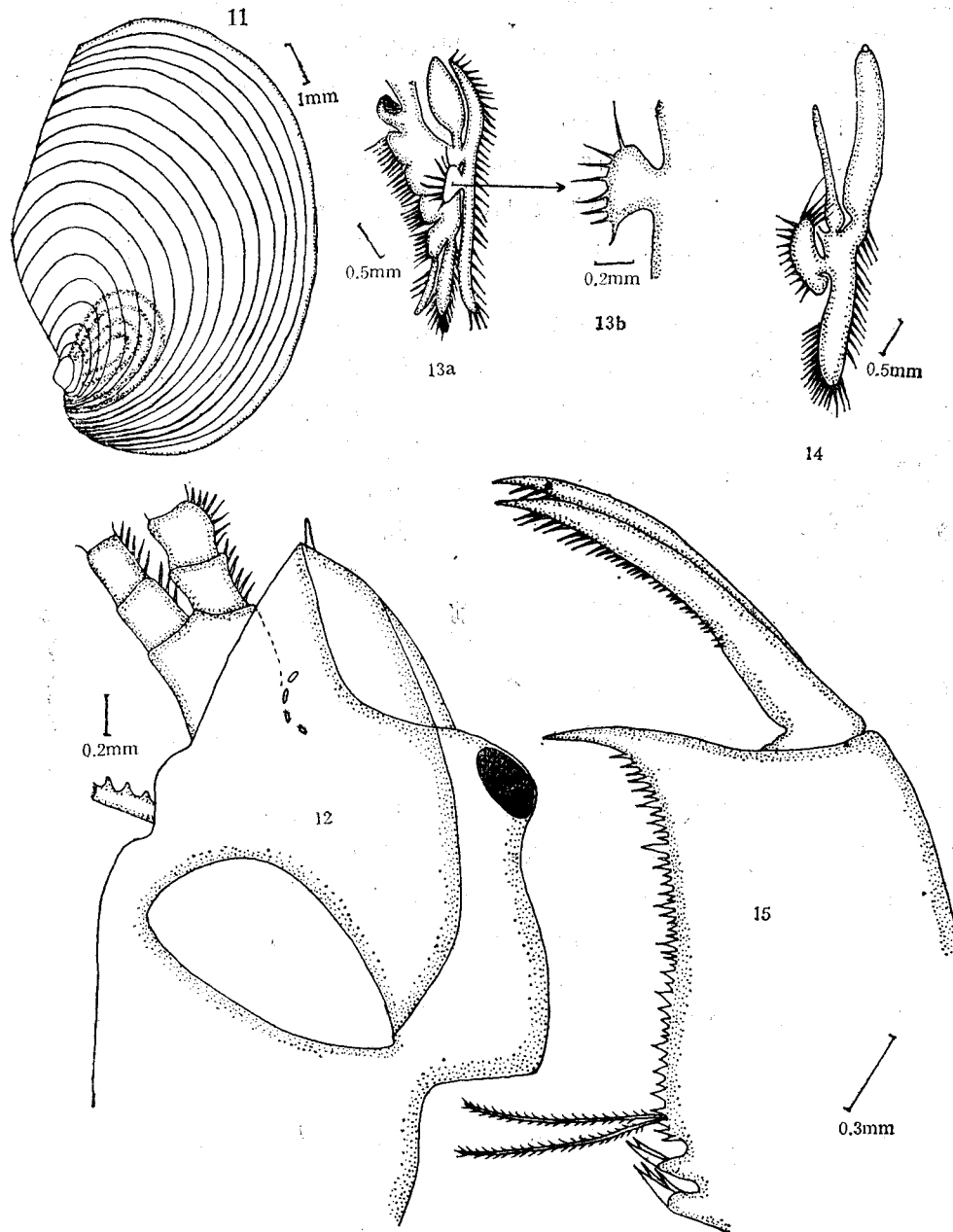


图 2 东平原狭蚌虫(新种)(雌) *E. dongpingensis* sp. nov.

11. 壳的侧面观； 12. 头部侧面观； 13a. 第 1 躯干肢， 13b. 第 1 躯干肢的三角形外肢片； 14. 第 11 躯干肢示携卵的上肢及三角形外肢片； 15. 尾节左侧面观。

是 14 节，外肢短，是内肢长的 4/5；内、外肢各节分别有向前伸的羽状短刺 2—10 个及向后伸的羽状长刚毛 3—11 条，见图 1:5。

躯干部： 25 个体节。末 17 个体节的背部中部有向后的背突，其中末 11 个体节者较发达，且向后下方弯曲。每个背突上生有向后伸的棘刺，自后向前顺次为 2, 2, 2, 2, 2, 2, 2,

2,2,2,3,2,2,2,1,1,0个,棘刺长于或等于背突之长。每体节生1对附肢,但末3,4对附肢发育不全。第1,2躯干肢是执握肢,第1执握肢第4内叶内缘中部凹陷较深,内缘突呈锐角状,该内叶末角有一长柱状突起,其周缘密生刚毛,第5内叶弯钩状,末端生尖刺多枚,第6内叶端部膨大宽圆,见图1:6。第2执握肢相似于第1执握肢,唯第4内叶内缘中部凹陷较浅,内缘突圆钝,见图1:7。第3躯干肢内肢第5内叶的须细长,分2节,为第6内叶长的2倍,见图1:8。第5躯干肢内肢第5内叶亦分2节,与第6内叶等长,见图1:9。躯干肢的外肢外缘无指状突起物而生许多刚毛。躯干肢的三角形外肢片小,周缘生稀疏的刚毛。

尾节:背缘内凹,每侧缘生齿30枚,其中有小齿8—9枚。羽状尾刚毛2条,位第3齿处。尾爪的背侧缘后部2/3范围内生小齿33个(右尾爪)及35个(左尾爪),见图1:10。

壳腺自壳顶下方开始,在壳内面向斜下方伸展至第7条生长线处,呈长椭圆形。

**2. 雌性** 壳的形态相似于雄壳。壳背缘较雄者更隆起。前背角不甚明显。生长线16—17条,见图2:11。壳长9—10.5 mm,壳高6—7 mm,壳宽3—3.5 mm。

头部:额角窄尖,端部有细刺1个。眼上缘凹陷浅。后枕角似直角,头后凹深于雄者,见图2:12。第1触角细长,为壳长的1/4—1/5,有感觉乳突19—20个。第2触角的内肢13节,外肢14节;内、外肢各节分别有向前伸的羽状短刺2—9个及向后伸的羽状长刚毛2—10条。

躯干部:25个体节。背突特征与雄者相同,只是每个背突上伸向后的棘刺数自后向前分别为2,2,2,2,2,2,2,3,3,3,2,3,2,3,3,3个。躯干肢25对,除末3,4对躯干肢发育不全外,各躯干肢形态相似;其三角形外肢片小于雄者,见图2:13。第11,12躯干肢为携卵肢,外肢片三角形,长约0.9 mm,外肢上叶棒状,以粘附卵粒。卵粒淡黄色,圆球形,卵径0.11 mm,虫体两侧粘附卵粒总数约1000—1200粒,见图2:14。

尾节:背缘平直,每侧缘生齿43枚,其中小齿12,13枚。羽状尾刚毛2条,位于第3,4齿之间。尾爪背侧缘后部2/3范围内生小刺31个,小刺自前至后渐次增大,见图2:15。

壳腺:始于壳顶前下方,在壳内面向后方伸延至第9条生长线处,呈近圆形。

## 比 较

本新种与中国原狭蚌虫 *E. chinensis* Daday, 1923 非常相近,见图3,但有明显的区

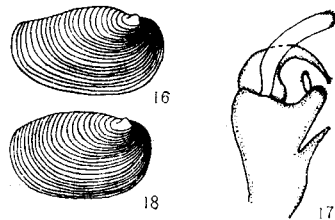


图3 中国原狭蚌虫 *E. chinensis* Daday, 1923

16. 雄性壳侧面观; 17. 雄性第2执握肢端部; 18. 雌性壳侧面观。

别, 见下表。

比较项目	<i>E. chinensis</i> Daday	<i>E. dongpingensis</i> sp. nov
生长线	22—26	15—17
第1触角乳突数	16—17	19—20
第2触角内、外肢节数	16—17	13—14
第2执握肢第4内叶内缘特点	中部凹陷较深, 突起呈锐角状	中部凹陷较浅, 突起圆钝
携卵肢	第10, 11 躯干肢	第11, 12 躯干肢
生背突的体节数	18	17
尾节背缘齿数	25—28	30—43

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**A NEW SPECIES OF THE GENUS *EOLEPTESTHERIA*  
DADAY (CRUSTACEA: CONCHOSTRACA,  
LEPTESTHERIIDAE) FROM SHANDONG,  
CHINA**

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ABSTRACT

In the present paper a new species named *Eoleptestheria dongpingensis* of the Phyllopoda Conchostracan genus *Eoleptestheria* Daday, 1923 is described.

***Eoleptestheria dongpingensis*** sp. nov. (fig. 1—2)

**Holotypes** 6♂, No. DP-8305311, shell 11.0—11.5 mm in length, 6.2—7.0 mm in breadth

**Paratypes** 5♀, No. DP-8305312, shell 9.5—10 mm in length, 6.3—6.8 mm in breadth.

The specimens are collected from fry-rearing pond near the Dongping Lake, Shandong Province, North China, on May 31, 1983.

The holotypes and paratypes are deposited in the Department of Fisheries, Shandong College of Oceanology.

**Male** Shell ovate-oblong, semi-transparent, yellowish, with an arch on the middle of the dorsal margin; umbone small and prominent at about 1/6 length of shell from anterior end. Anterior margin of shell is rounded, no angle; a distinct angle is formed at the junction of the hinge-line and the hind margin; growth lines 15—17; ventral margin is smooth. Sculpturing foam-like. Dimensions of shells: 11—11.7 mm in length, 6.2—7.1 mm in height, 3.4—3.7 mm in breadth. Rostrum broad, rounded and armed with a conspicuous apical spine at anteroventral extremity. The occipital angle of the head is rounded-quadrate. Profile between occipital angle and eye is concave. A broad shallow notch is formed at the junction of the head and the trunk. First antenna with 20 sensory lobes and second with 14 segments in each ramus. The first antenna reaches to the sixth segment of the endopodite of the second antenna. Trunk with 25 pairs of swimming legs. First two pairs of appendages are modified into prehensile legs that are very similar in form except the notch and protuberance exist on the inner margins of each fourth endite; the notch on the first leg is deeper than that of the second, the protuberance is acute on the first leg, while is blunt on the second. Palp on the fifth endite of the third leg is slender with two joint and about double the length of the sixth endite of which in the fifth leg is as long as the sixth endite. There are small triangular laminae with sparse setae around it on the exopods of every leg. Last 17 pedigerous body segments armed dorsally with spines of plumose setae; number of those spines from behind forward: 2, 2, 2, 2, 2, 2, 2, 2, 2, 3, 2, 2, 2, 1, 1, 0. The telson bears 30 unequal spines. The forked hair filament lies near the third spine. Furcal claws with 33 (right) and 35 (left) minutely spinulose bristles on the dorsal margin.

**Female** The shell is similar to that of the male, but the dorsal margin of the shell is more convex than that of the male; an anterior angle is faint; growth lines 16—17. Size of the shell

are 9—10.5 mm in length, 6—7 mm in height, 3—3.5 mm in breadth. Rostrum acute, with a conspicuous apical spine at anteroventral extremity as in male. The occipital angle of the head is a right angle-like. The notch at the junction of the head and the trunk is deeper than that of the male. First antenna with 19—20 sensory lobes and second with both rami 13—14 joints. There are 25 pairs of swimming legs as in male of which the eleventh and the twelfth legs are ovigerous, with dorsal lobes of the exopods forming cylindrical structure to hold the eggs. The triangular laminae of the exopods are smaller than that of male's. Last 17 pedigerous body segments armed dorsally with spines which are more in number than that in male; number of those spines from behind forward: 2, 2, 2, 2, 2, 2, 2, 3, 3, 3, 2, 3, 2, 3, 3, 3. The telson bears 43 unequal spines. The forked hair filament lies in between the third and the fourth spines.

Eggs are spherical, yellowish, 0.11 mm in diameter.

**Remarks** This new species is closely allied to *E. chinensis* Daday, 1923, (fig. 3) but differs from the latter as follows:

	<i>E. chinensis</i> Daday	<i>E. dongpingensis</i> sp. nov.
Number of growth lines	22—26	15—17
Number of sensory lobes of 1st antenna	16—17	19—20
Number of segments of 2nd antenna	16—17	13—14
The inner margin of 4th endite of the 2nd prehensile leg	notch deep, protuberance blunt	notch shallow, protuberance acute
Ovigerous legs	the 10th & 11th	the 11th & 12th
Number of armed body segments	18	17
The dorsal spines of the telson	25—28	30—43