

古 生 物 学 报

第 1 卷 第 3 期 1956 年 8 月

几个中奥陶纪介形类新种^{*}

侯 祐 堂

(中国科学院古生物研究所)

(附 1 圖版)

中國中奥陶紀介形类化石最初發現于遼寧省太子河流域本溪縣田師付附近；标本系 1950 年东北地質調查隊楊敬之、穆恩之二先生采自中奥陶紀馬家溝下部不純的深灰色虫迹石灰岩中。僅有 *Bollia sinensis* 及 *Bollia taitzeoensis* 兩種，种的个体分布相当普遍；与头足类 *Armenoceras*, *Steroplasmodoceras*, 腕足类 *Rafinesquina*, *Dalmanella* 及三叶虫、苔鮮虫等共生。

1951 年楊敬之、穆恩之二同志調查鄂西地質时在湖北長陽楊柳屯中奥陶紀艾家山層的上部又發現了介形类化石一層，个体虽甚丰富，但僅有 *Euprimitia sinensis* 一新种。介形类化石產在厚約 5 米的黑色頁岩頂部，其下產三叶虫及筆石 *Glyptograptus teretiusculus* 等，其上被岩性較純而具有干裂構造的灰色石灰岩所盖复，这种具干裂構造的石灰岩產头足类 *Sinoceras chinense*。按介形类化石的層位來看，可以和浙西中奥陶紀硯瓦山系底部桔黃色頁岩中的介形类化石的層位相比，但在浙西所采的介形类化石种屬頗多，待詳細研究鑒定后，將另行發表。

由上述的情况看來，湖北艾家山層中發現的介形类化石与太子河流域馬家溝統中所產的种屬区别很大，因未作詳細的采集，化石層位对比起來比較困难。在另一方面，由于它們在兩处岩層中的分布都相当丰富，在分層方面或將有很大价值。

作者对楊敬之、穆恩之二先生賜予东北太子河及鄂西長陽一帶的介形虫标本材料，深表謝意。

种 屬 描 述

科 *Hollinidae* Schmidt, 1941亞科 *Euprimitiinae* Hessland, 1949屬 *Euprimitia* Ulrich & Bassler, 1923^{*} 1956 年 4 月 16 日收到

Euprimitia sinensis Hou (新种)

(圖版 I, 圖 1—9)

描述: 殼突起度中等, 後半部最厚; 輪廓近卵形, 背边直, 鉸合綫長約為殼長的四分之三; 背角清晰, 前后兩端圓度不等, 前端較后端略狹; 腹边呈寬圓弯曲; 圍繞自由邊緣有尖銳的假边, 此尖銳的假边表現在空模內呈細狹而深的溝。中槽發達, 位于殼中間的前方, 直立或微傾斜, 其底部最深, 上端寬淺; 槽前側中間生有顯明的小圓疣。表面有網狀裝飾。

此屬在中國是首次發現; 最初觀察時, 作者認為是 *Primitia* 屬的一新種; 因標本保存均系內模, 表面網狀構造不清楚, 圍繞自由邊緣的尖銳假边在內模表面表現不顯明; 但經仔細觀察后, 在保存較好的空模內可以看到清楚的網狀裝飾及假边在里面所呈的溝, 根據其所表現的各特征, 應為 *Euprimitia* 屬之一種, 并與屬型 *Euprimitia sanctipauli* (Ulrich) 很類似, 然經仔細比較兩種的區別亦甚明顯: 第一、此種殼較大。第二、中槽較短上端淺而寬, 最重要的區別是此種僅在中槽的前側中間產生一小圓疣。

層位及地点: 湖北長陽楊柳屯, 中奧陶紀艾家山層的上部黑色頁岩, 風化后呈淺棕黃色(BY 10)。

正型: 登記号 8526; 副型: 登記号 8519。

科 Drepanellidae Ulrich & Bassler, 1923

屬 *Bollia* Jones & Holl, 1886*Bollia sinensis* Hou (新种)

(圖版 I, 圖 12—13)

描述: 殼長約 1.8 毫米, 高 0.9 毫米, 側視為長半圓形, 前后兩端略等。U 形隆脊顯明, 外 U 形隆脊和自由邊緣平行, 其兩端直达背边的前后端; 內 U 形隆脊與外 U 形隆脊中間被一狹溝分开, 內 U 形隆脊的兩端膨脹很強, 似尖大的疣, 前疣較后疣大, 表面似光滑。

比較: 此新種很似 *Bollia burgeneri* Swartz 及 *B. americana* var. *zygocornis* Swartz, 但主要的區別在于內隆脊膨脹的特性不同; 此種內隆脊的腹部很低平, 並沒有產生任何疣, 故与后兩種的區別甚明顯。

層位及地点: 遼寧省本溪縣田師付孔家堡子; 中奧陶紀馬家溝統下部深灰色虫迹石灰岩(BE 886)。

正型: 登記号 8530。

Bollia taitzehoensis Hou (新种)

(圖版 I, 圖 10—11, 14)

描述：側視切卵形；鉸合直其長約為殼長的四分之三；腹邊向后端彎曲規則，但向鉸合的前極端彎曲較緩。殼面突起度較強，自前端升起較平緩，自后邊及腹邊升起較陡。中槽長而深，槽兩側各有一个突起很強的長疣；前疣較后疣更大；兩疣上端與不顯明的前后邊緣隆脊之間被一淺凹陷分开，其下端與腹部突起相連。表面光滑。

就标本所表現的此种介形虫的个体的殼較 *Bollia simplex* (Ulrich) 为大，鉸合長，但在某些特性方面觀察却與它很相似，由于此种中間兩個大疣的特性與 *Bollia subaequata* Ulrich 也很类似，但此种沒有相連接的 U 形隆脊，而有長的鉸合邊，并在前端至前疣間及后端至后疣間表現兩個不明顯的凹陷。

此种與 *Bollia sinensis* 共生在同層亦相当丰富。

正型：登記号 8527。

参 考 文 献

- [1] Bassler & Kellett, 1934. Bibliographic index of Paleozoic Ostracoda. *Geol. Soc. America*, Special Paper No. 1.
- [2] Henningsmoen, G., 1953. Classification of Paleozoic straight-hinged ostracodes. *Sæsttrykk av Norsk geologisk tidsskrift*, 31, 185-288.
- [3] Jones, T. R., 1886. Notes on the Paleozoic bivalved Entomostraca-No. XX, on the genus *Beyrichia* and some new species. *Ann. Mag. Nat. Hist.*, ser. 5, 17, 337-363.
- [4] Kay, G. M., 1940. Ordovician Mohawkian ostracoda: Lower Trenton Decorah Fauna. *Jour. Pal.*, 14 (3), 234-269.
- [5] Krause, H. A., 1892. Neue ostrakoden aus markischen silurgeschieben. *Zeit. Deut. Geol. Gesell.*, 44, 383-397.
- [6] Shimer & Shrock, 1944. Index fossils of North America. 660-693.
- [7] Singwu C. Hsu & C. T. Ma (許杰和馬振圖), 1948. The I-Chang formation and the Ichangian Fauna. *Contrib. Nat. Res. Inst. Geol. Acad. Sinica*, No. 8, pp. 1-52.
- [8] Swartz, F. M. & Swain, F. M., 1941. Ostracodes of the Middle Devonian Onondaga Beds of central Pennsylvania. *Bull. Geol. Soc. America*, 52, 381-458.
- [9] Swartz, F. M., 1936. Revision of the Primitiidae, and Beyrichiidae, with new Ostracoda from the Lower Devonian of Pennsylvania. *Jour. Pal.*, 10, 541-586.
- [10] Ulrich, E.O., 1894. Lower, Silurian Ostracoda of Minnesota: *Geology Minnesota*. vol. 3, pt. 2, 629-693.
- [11] 王鈺、盧衍豪等，遼東太子河流域地層(II)——地質學報，第34卷，2期，1954年6月。
- [12] 楊敬之、穆恩之，鄂西長陽宜都一帶奧陶紀地層——古生物學報，第2卷，1期，1954年3月。

SOME NEW SPECIES OF OSTRACODS FROM MIDDLE ORDOVICIAN

Y. T. Hou

Institute of Palaeontology, Academia Sinica

(Summary)

Introduction

Three species of Ostracods are described in the present paper; one of them was collected from the Neichiashan formation of Western Hupeh and the remaining two were obtained from the Machiakou limestone, Taitzeho Valley, Liaoning. Both formations belong to the Middle Ordovician. The Ostracods of the Middle Ordovician in China have not yet been described.

The Neichiashan formation bears a thickness of about 119 metres and is composed of shales and limestones; the ostracods *Euprimitia sinensis* (sp. nov.) occurs abundantly in the upper part of the black shale about 22 metres in thickness below the base of the Upper Ordovician Wufeng shale. The black shale here stated is overlain by the grey limestone with mudcrack yielding *Sinoceras chinense*, and is underlain by the black shale bearing *Glyptograptus teretiusculus*.

The Machiakou formation consists mainly of limestone, measuring about 400 metres in thickness. Two species of Ostracods, *Bollia sinensis* (sp. nov.) and *Bollia taitzehoensis* (sp. nov.), have been found in the dark grey limestone in the Lower part of this formation. They occur in association with cephalopods, brachiopods, trilobites and bryozoans.

The specimens of Ostracoda obtained from the Neichiashan formation differ considerably from those obtained from the Machiakou formation. Precise correlation of these two formations simply based on the evidence of ostracods can not be carried out for the time being.

The writer wishes to express her thanks to Messrs. K. C. Yang and A. T. Mu for furnishing their excellent specimens for study. She wishes to express her sincere thanks to Dr. H. C. Sze for the critical reading of the manuscript.

Description of species

Family Hollinidae Schmidt, 1941

Subfamily Euprimitiinae Hessland, 1949

Genus *Euprimitia* Ulrich & Bassler, 1923

Euprimitia sinensis Hou (sp. nov.)

(Pl. I, Figs. 1-9)

Description: Valve moderately convex, thickest posteriorly, subovate in lateral outline, with a straight back nearly three-fourths as long as the greatest length of valve, and rather distinct dorsal angles. End rounded, unequal; anterior sometimes narrower than the posterior forming a trifle; ventral margin broadly convex, free edges with a well-defined, sharpe border, which is represented by a deep furrow along the free edges in the hollow cast and is indistincy on the surface of the internal mould. Sulcus well developed, situated a little in front of the mid-length, vertically straight or slightly oblique, deepest in its lower part, broad and shallow above. A well defined swelling occurs at the middle of the anterior side. The entire surface is reticulated, except the sulcus.

Measurement of specimens:

Specimen no.	Length (mm)	Height (mm)	H:L (%)	Posterior length (mm)	P:L (%)
703	1.05	0.675	64	0.60	57
704	1.5	0.90	60	0.87	64
705 (Holotype)	1.5	1.05	70	0.93	62
700 (Paratype)	1.05	0.675	64	0.60	57
701	0.925	0.495	53	0.57	62
702a	0.6	0.375	63.5	0.315	52

This form is closely related to *Euprimitia sanctipauli* (Ulrich). Careful examination shows however that the two forms are quite distinct. First, the valves of *E. sinensis* are larger; secondly, the sulcus is relatively shorter, shallow and broad at the upper end. The most striking character of this species is that there is only one small node at the middle of the anterior side, instead of having two nodes, as is the case of the species *E. sanctipauli*.

Type specimens: Holotype (Inst. Pal. Acad. Sin. Cat. N. 8526) is a left valve; paratype (Inst. Pal. Acad. Sin. Cat. N. 8519) is a right valve.

Formation and locality: From the black shale in the upper part of Neichiashan formation of the Changyang District, Hupei province.

Family Drepanellidae Ulrich & Bassler, 1923

Genus *Bollia* Jones & Holl, 1886

Bollia sinensis Hou (sp. nov.)

(Pl. I, Figs. 12-13)

Description: Valve more of less semicircular in side view, length to height

about 2 to 1; hinge-line straight and rather long; ventral margin gently convex; ends subequal. Surface of valve marked by two U-shaped ridges, the outer ridge is subequal to the free margins, and it does reach the dorsal margin anteriorly and posteriorly. The inner ridge is separated from the outer one by a narrow groove. Both dorsal ends of the inner ridge are swollen into large, sharpened nodes, the anterior node is somewhat larger than the posterior, and the ventral ends of the inner ridge is very low.

Relationships: This new species is very similar to *Bollia burgeneri* Swartz and *B. americana* var. *zygocornis* Swartz; it differs from them in having more indistinct ventral swellings of the inner ridge. The ventral part of the inner ridge of this species is rather low and the small third knob of the yoke on the inner ridge is lacking.

Type specimens: Holotype (Inst. Pal. Acad. Sin. Cat. N. 8530) is a left valve.

Formation and locality: From the lower part of Machiakou formation of the Penchi district, Liaoning.

Bollia taitzehoensis Hou (sp. nov.)

(Pl. I, Figs. 10-11, 14)

Description: Outline truncate oval; hinge straight and long, more than three-fourths of the valve length; ventral margin regularly curved to the posterior end but somewhat gentle to the anterior extremity of the hinge. Surface of valves convex, rising gently from anterior margin, more steeply from posterior and ventral. The median sulcus is long and deep. There are two lobe-like nodes situated on each side of the sulcus; the anterior node is larger than the posterior. The two nodes are separated from the faint marginal lobe by a shallow depression. Surface smooth.

The specimens of this species resemble in some respect *Bollia simplex* (Ulrich), but the size of the shell is considerably larger. Our species is also very like *Bollia subaequal* Ulrich in the character of the central lobes, though there is no continuous marginal lobe, and the hinge line is longer than the latter species. The two obscure depressions, one from anterior margin to anterior lobe and the other from the posterior margin to posterior lobe in the present species are also very characteristic.

The specimens were found from the gray limestone (BE886) with worm-trails in the lower part of Machiakou formation in the Penshi district of Liaoning in close association with the specimens of *Bollia sinensis*.

Type specimen: Holotype (Inst. Pal. Acad. Sin. Cat. N. 8527) is a right valve.

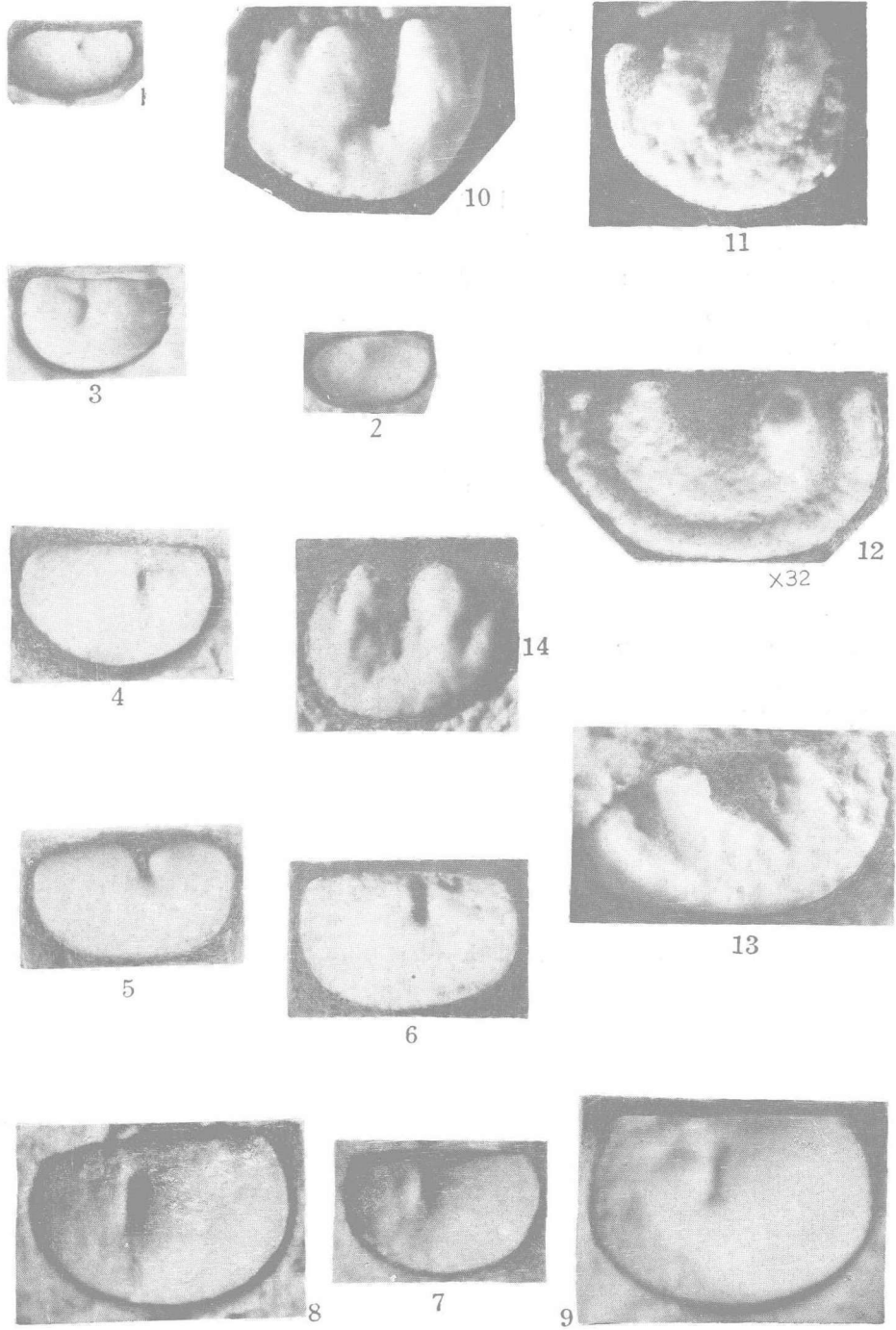


圖 版 說 明

(各圖略加潤飾, $\times 32$)

圖 1—9. *Euprimitia sinensis* Hou (新种)

1, 4—6. 不同个体的右殼。标本号: 702a, 700, 701, 706。

登記号: 8518—8521。

圖 4. 为副型。Paratype

2—3, 7—9, 不同个体的左殼。标本号 702b, 707, 703, 704, 705。

登記号: 8522—26。

圖 9. 为正型。Holotype

產地: 湖北長陽, 陽柳屯, 艾家山建造。野外编号: BY 10。

圖 10—11, 14. *Bollia taitzeensis* Hou (新种)

不同个体的側視。标本号: 662, 664, 660。

登記号: 8527—29。

圖 10. 为正型。Holotype

產地: 遼寧省本溪縣田師付, 孔家堡子; 馬家溝建造。野外编号: BE 886。

圖 12—13. *Bollia sinensis* Hou (新种)

不同个体的側視, 标本号: 663, 661。

登記号: 8530—31。

圖 12. 为正型。Holotype

產地: 同前。