

贵州威宁早石炭世簸箕湾组的软体动物

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本文描述的软体动物采自丁文江 1914 年命名的“簸箕湾页岩”的下部,岩性为黑色钙质页岩。簸箕湾组产丰富的腕足类、珊瑚、苔藓虫和软体动物等化石。吴望始、张遵信、金玉珩在 1974 年已有较详细的报道。软体动物经笔者鉴定有 6 属 7 种(包括未定种): *Dentalium* (*Antalis*) *acumen* (Koninck), *Bellerophon* *munsteri* A. d'Orbigny, *Euomphalus* *catillus* Sowerby, *Pseudozygopleura* *magna* sp. nov., *Pseudozygopleura* sp., *Meekospira* *carnimaxima* sp. nov., *Neocypricardinia* cf. *sinensis* (Chao), 其中的 *Bellerophon* *munsteri* A. d'Orbigny, *Dentalium* (*Antalis*) *acumen* (Koninck) 以前曾见于比利时石炭纪地层, *Euomphalus* *catillus* Sowerby 见于英国下石炭统。簸箕湾组中的腕足类、珊瑚、苔藓虫化石的地质时代是早石炭世早期,与软体动物群的地质时代一致。

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化石描述

掘足纲 Scaphopoda

角贝科 Dentalidae

角贝属 Genus *Dentalium*

Linné, 1758

幼贝亚属 *Antalis* H. Adams

et A. Adams, 1854

尖幼贝 *Dentalium* (*Antalis*) *acumen* (Koninck)

(图版 I, 图 4)

1883 *Antalis acumen* Koninck, p. 386, pl. XLIX, fig. 22.

壳小,细,近柱形。壳面光滑。

斧足纲 Pelecypoda

肋饰蛤科 Permophoridae Van de Poel, 1959

新美铰蛤属 *Neocypricardinia* Liu, 1976

中国新美铰蛤(比较种) *Neocypricardinia* cf. *sinensis* (Chao)

(图版 I, 图 15, 16)

1927 *Cypricardinia sinensis* Chao; 赵亚曾, 第 17 页, 图版 I, 图 21—25。

1976 *Neocypricardinia sinensis* (Chao), 《中国的瓣鳃类化石》编写小组, 第 94 页, 图版 4, 图 26—32。

壳较小,壳顶凸,壳嘴内曲,壳面有同心线 15 圈。与河北临城的标本不同处在于贵州标本的最高处位于腹边后端之前,中部之后。

腹足纲 Gastropoda

神螺科 Bellerophonidae

神螺属 *Bellerophon* Montfort, 1808

模氏神螺 *Bellerophon* *munsteri* A. d'Orbigny

(图版 I, 图 9, 10)

1883 *Bellerophon munsteri*, Koninck, p. 296, pl. XXXVII, figs. 9, 10; pl. XLI, figs. 3—8.

壳体球形,包旋,迅速增大。无脐。裂带凸。

全脐螺科 Euomphalidae

全脐螺属 Genus *Euomphalus* Sowerby, 1814

卷折全脐螺 *Euomphalus catillus* Sowerby

(图版 I, 图 7, 8)

1834 *Euomphalus catillus* Sowerby, Knight, p. 142, pl. 20, fig. 2.

壳体近盘状,螺塔稍突起,螺环上部近外侧具一旋脊。脐宽。螺环下部角状。

假横肋螺科 *Pseudozygopleuridae*

假横肋螺属 Genus *Pseudozygopleura* Knight, 1930

大假横肋螺 (新种) *Pseudozygopleura magna* sp. nov.

(图版 I, 图 1—3)

壳体较大,塔形,成年壳体至少有 13 个圆凸的、增长规则的螺环,螺环宽大于高,壳高 65mm,壳宽 20mm。壳面饰有轴肋。胎壳特征不详,早期螺环上的轴肋细;后部壳体上的轴肋粗,轴部中部较尖锐,近顶缝合线处前斜,离顶缝合线处后斜。末第二环饰有 21 根轴肋,壳面除饰有轴肋外,尚有生长线,生长线从近顶缝合线延至离顶缝合线,并与轴肋弯曲方向相同。缝合线浅而斜,缝合线之下有一稍宽的凹陷带(次缝合线带),轴肋在此区内变弱。末螺环饰有 29 根轴肋,趋向壳口而变弱,从缝合线延至脐区呈线状。周缘圆凸。底部凹斜。壳口破损;壁唇凸;轴唇凹;唇唇可能前斜;基唇可能后斜。

比较 新种与美国圣路易斯密苏里 (St. Louis Missouri) 宾夕法尼亚层中的 *Pseudozygopleura* (*P.*) *scitula* (Meek and Worthen) (Knight, 1930) 在壳形、轴肋弯曲、近顶缝合线处有凹陷带等特征相似,但前者壳体大、轴肋多、凹陷带宽不同于后者。

假横肋螺(未定种) *Pseudozygopleura* sp.

(图版 I, 图 5, 6)

这一未定种为 2 个不完整的标本所代表,保存下来的 3 个螺环的特征是螺环凸,增长迅

速。缝合线浅而斜。壳面饰以粗壮的轴肋,并与肋隙等宽,螺环面上具有生长线,从近顶缝合线延至离顶缝合线,并延至最后一环的底部。

这未定种除轴肋少而宽的特征外,其余特征与前一新种很相似,可能为同种,仅是性状特征之分,也可能为一新种。尚待收集更多的材料后再进一步确定。

密氏螺科 *Meekospiridae*

密氏螺属 Genus *Meekospira*

Ulrich, 1897

肥大密氏螺 (新种) *Meekospira carnimaxima* sp. nov.

(图版 I, 图 11—14)

壳体大,尖锥形,壳高 23.0—25.8mm,壳宽 10.1—11.0mm。螺塔侧面斜直,螺环稍凸,几乎平,壳面光滑,缝合线浅。末螺环约为壳高之半,周缘钝角状。壳口卵形,后端尖角状,前端圆。

新种与圣路易斯密苏里宾夕法尼亚层中的 *Meekospira peracuta* Meek and Worthen (Knight, 1932, Jour. Paleont. vol. 6, no. 2, p. 195, pl. 27, fig. 2 a—i) 相似,但前者壳体大及底部低。*M. carnimaxima* 壳体大、壳面平及缝合线浅的特征易与甘肃本溪组中的 *M. acuminata* 相区分。

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MOLLUSCS FROM LOWER CARBONIFEROUS BOJIWAN FORMATION OF WEINING, GUIZHOU

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Summary

The Molluscs described in this paper were collected from the Bojiwan Formation, Guizhou, with 6 genera and 7 species including 2 new species, which are listed as follows: *Dentalium (Antalis) acumen* (Koninck), *Bellerophon munsteri* A. d'Orbigny, *Euomphalus catillus* Sowerby, *Pseudozygopleura magna* sp. nov., *Pseudozygopleura* sp., *Meekospira carnimaxima* sp. nov., and *Neocypricardina* cf. *sinensis* (Chao). Since the first two species have previously been found from the Carboniferous deposit of Belgium, and *Euomphalous catillus* Sowerby was reported from the Early Carboniferous deposit of England, it is suggested that

this fauna belongs to an Early Carboniferous age.

Description of new species

Pseudozygopleura magna sp. nov.

(Pl. I, figs. 1—3)

Diagnosis: Shell rather large, more than thirteen in convexity, with whorls regularly growing in ephebic stage. Whorls wider than high; shell 65 mm high and 20 mm wide. Surface ornamented with axial ribs which are slender on early whorls, and become coarse on later ones, rather sharp in

the medial part, prosocyrt at adapical suture and opisthocyrt at abapical suture. Penultimate with twenty-one axial ribs and growth lines; extensible like axial ribs. Suture oblique and shallow; just below the suture occurring slightly wide subsuture band, where the axial ribs become weaker. Last whorl ornamented with twenty-nine axial ribs from suture to umbilicate area which become weaker toward the aperture. Periphery convex, while columella concave; palatine possibly prosocyrt, while base lip possibly opisthocyrt.

Remarks: This new species shows a close similarity to *Pseudozygopleura* (*P.*) *scitula* (Meek and Worthen) (1930, Jour. Palaeont. vol. 4, suppl. 1, p. 33, pl. 1, fig. 2) in the general outline, the sharp sinuosity of axial ribs and the subsuture band occurring below the adapical suture; but in the former, the axial ribs are numerous and the subsuture band rather wide.

Meekospira carinimaxima sp. nov.

(Pl. I, figs. 11—14)

Diagnosis: Shell acutely conical, large; sides of spire obliquely straight; whorl profile very gently rounded and almost flat. Surface smooth. Suture shallow. Last whorl about half as high as shell. Periphery bluntly angular. Aperture oval; posterior angular, while anterior rounded.

Shell 23.0 mm in height and 10.3—11.0 mm in width.

Remarks: This new species approaches closely to *Meekospira peracute* (Meek and Worthen) of the Pennsylvanian from St. Louis, Missouri (1932, Jour. Paleont. vol. 6, no. 2, p. 195, pl. 27, fig. 2a-1), but the latter is distinguished by its small and long base. The new species differs from *M. acuminata* (Goldfuss) in the large shell, flat surface and shallow suture.

图 版 说 明

本文研究的标本均存放在上海自然博物馆。标本产于贵州威宁, 簸箕湾组

图 版 I

1—3. *Pseudozygopleura magna* sp. nov.

1. 背视, 2. 口视, $\times 1.5$, 登记号: 1140 (Holotype).

3. 侧视, $\times 3.3$, 登记号: 1141 (Paratype).

4. *Dentalium* (*Antalis*) *acumen* (Koninck)

侧视, $\times 1.5$, 登记号: 1142.

5, 6. *Pseudozygopleura* sp.

5. 侧视, $\times 2$, 登记号: 1143.

6. 侧视, $\times 2$, 登记号: 1144.

7, 8. *Euomphalus catillus* Sowerby

7. 顶视, 8. 底视, $\times 1.5$, 登记号: 1145

9, 10. *Bellerophon munsteri* A. d'Orbigny

9. 口视, 10. 背视, $\times 2$, 登记号: 1146

11—14. *Meekospira carinimaxima* sp. nov.

11. 口视, 12. 背视, $\times 2$, 登记号: 1147 (Holotype).

13. 口视, 14. 背视, $\times 2$, 登记号: 1148 (Paratype).

15, 16. *Neocypricardina* cf. *sinensis* (Chao)

15. 右壳, 16. 左壳, $\times 2$, 登记号: 1149.

