

ON SOME NEW OSTRACODS FROM KWANGSI

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(Abstract)

Introduction

The materials which form the subject of the present paper were collected from the following formations and localities: (1) The Middle Devonian Yukiang formation of Yungchun district and (2) The Devonian lenticular limestone of Lingchuan district of Kwangsi. The ostracods of the second locality are preserved as internal moulds and therefore are far from being complete.

The specimens illustrated and described in this paper comprise 4 species in 3 genera, all of the species are new.

The material of the first locality consists of a well-preserved *Primitia yungchunensis* with many excellently preserved *Spirifer tonkinensis*, *Atrypa desquamata* and *Calceola sandalina* etc. These are characteristic forms of the Middle Devonian (Eifelian) of Europe and Eastern Asia.

The second collection was obtained from the Lingchuan district. No data are readily available on the stratigraphy of this locality. The ostracods as now known comprise the following four species: *Healdia* sp., *Richterina substriatula*, *R. subhemisphaerica*, Gen. et sp. (indet.). The genus *Richterina* is a very characteristic fossil and is restricted only in the Devonian age. It is noteworthy that both species *R. substriatula* and *R. subhemisphaerica* in our materials are very closely related to *R. striatula* (Richter) and *R. hemisphaerica* (Richter) of the Upper Devonian of Europe. In addition to the ostracods, a few fossils of trilobites have been found from the same bed. The trilobites were determined by Mr. W. T. Chang. It is interesting that the evidence of the trilobites *Typhloproetus* sp. points also to an Upper Devonian age. Whether the fossil bed belongs to the upper or the lower part of the Upper Devonian can not yet been settled. The present ostracods might have been derived from the upper part of the Liukiang Series, since the lenticular limestone with trilobites is a very characteristic bed of the upper part of Liukiang Series of Kwangsi Province. According to Mr. K. K. Chao, the cephalopods (e.g. *Manticoceras* and *Beloceras*) found from the lower part of the Liukiang Series in the Kweiping district, S.

Kwangsi are of the Frasnian stage of the Upper Devonian. It is evident that the lenticular bed of N. Kwangsi is of the same stage.

As mentioned above, the meager fauna of the lenticular limestone of the Lingchuan district shows a clear affinity with European Upper Devonian ostracods.

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Description of species

Superfamily Beyrichiacea

Family Primitiidae Ulrich & Bassler 1923

Subfamily Primitiinae Ulrich & Bassler 1923

Genus *Primitia* Jones & Holl 1865

Primitia yungchunensis Hou (sp. nov.)

(Pl. I, figs. 9-11)

Description: Carapace scaphoid, dorsal margin straight, shorter than the maximum length of the valve. Ventral margin curving from middle forwards to anterior. Hinder subsemicircular. Surface smooth, marked by a median sulcus which is about onehalf the height of valve. Shell moderately and uniformly convex. Hingement simple.

Relationships: This species is related to *Primitia lavigata*, but the shell of the latter species has a round posterior cardinal angle and the sulcus is present on the anterior third.

Measurements of specimen: Length 0.88 mm, height 0.51 mm, thickness 0.48 mm.

Horizon and Locality: This species occurs in association with *Spirifer tonkinensis*, *Atrypa desquamata* etc. in the Middle Devonian (Eifelian) Yukiang formation of Yungchun district in Kwangsi. Holotype: Cat. N. (7485).

Superfamily Cypridacea

Family Healdiidae Harlton 1933

Genus *Healdia* Roundy

Healdia sp.

(Pl. I, fig. 14)

Description: Valve small and elongated, moderately convex, the greatest con-

vexity is at about the ventral portion, which is curved along the ventral margin, and connected with the margin by a groove. The dorsal margin is gently rounded and the ventral straight. Anterior more or less narrower and thinner than the posterior. Two divergent spines are clearly present on the ventro-and dorso-posterior of the valve. This specimen has only left valve, the hingement is unknown.

Dimensions: Length 0.51mm, height 0.27mm.

Horizon and Locality: It was obtained from the lenticular limestone of the Upper Devonian, Lingchuan district of Kwangsi. Monotype: Cat. N. (7619).

Superfamily Entomozoacea

Family Entomozoidae Pribyl 1949

Genus *Richterina* Gurich

Richterina substriatula Hou (sp. nov.)

(Pl. I, figs. 6-8)

Description: Valve ovate, ventral margin nearly equals the dorsal. Valve moderately and uniformly convex. The greatest height is at the middle of the shell. Surface marked by numerous regular striae.

Dimensions: Length 0.82mm, height 0.51mm.

Relationships. This species bears a close resemblance to *Richterina striatula*, but its superficial ornament differs from that form in having no rows of small spots on the striae.

Horizon and Locality: It was obtained from the lenticular limestone, Upper Devonian; Fonglingshan of the Lingchuan district, Kwangsi. Syntypes: Cat. N. (7624-26).

Richterina subhemisphaerica Hou (sp. nov.)

(Pl. I, figs. 1-5)

Description: Valve subhemisphaerical, somewhat elongate. Ends equal. There are 6-8 irregular, narrow grooves in the hollow cast. Some of them begin from end to end, others from end to the middle part of the valve and outer one or two of grooves are all around the inner. Between grooves is a flattened, wide space. Shell slightly convex, evenly flattened. Ventral and dorsal margins gently curved towards the ends.

Dimensions: Length 1.26mm, height 1.05mm (approx.) (Cat. N. 7622).

Length 1.02mm, height 0.68mm (approx.) (Cat. N. 7620).

Relationships: It is closely related to *Richterina hemisphaerica* (Richter), but differs from the latter in having irregular grooves.

Horizon and Locality: It occurs with *Richterina substriatula*, *Healdia* sp. etc. in the lenticular limestone, Upper Devonian; Lingchuan district, Kwangsi. Syntypes: Cat. N. (7620, 7623).

Gen. et sp. (indet.)

(Pl. I, figs. 12-13)

Description: Valve elliptical to ovate, moderately convex, dorsum and ventrum slightly curved, sloping toward both ends. Posterior end equal to or larger than the anterior. Surface smooth, but numerous, almost vertical striae in the reverse of the valve.

With regard to the outline of this form, this individual is very closely related to *Bythocypris* Brady, differing from the latter only by the numerous striae in the reverse of valve.

Horizon and Locality: It was obtained from the lenticular limestone of the Upper Devonian; Lingchuan district of Kwangsi. Cat. N. (7691-92).