

## ON THE DISCOVERY OF EIFELIAN FAUNA FROM WESTERN TSINLING

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### (Summary)

In southeastern Kansu, there is a vast area of metamorphosed sedimentary rocks composed of quartzites, crystallized limestones and slates with some intercalations of hematites exposed in the valley of Lengputze to the north of Wen Xian, and in the valley of Sunchiyuan to the west of Kang Xian. In 1944, Yeh and Kwan named the above mentioned strata at Lengputze Lupanchiao Quartzite and referred it to Lower Carboniferous. Lately (1959), by the discovery of Tabulata (*Favosites* sp.), C. H. Huang regarded it as the upper part of the so-called Pikou Group of Lower Palaeozoic in age. While carrying on a field exploration in 1960, one of the writers, Kuo, collected a few fossils from the same section and the corresponding strata in Kang Xian. They are listed below:

- Brachiopoda: *Acrospirifer* cf. *tonkinensis* (Mansuy)  
 Rugosa: *Acanthophyllum* sp.  
 Tabulata: *Squameofavosites obliquespinus* (Tschernyschew)  
           *Sq. linjiangensis* Kuo (sp. nov.)  
           *Sq. zueitaiensis* Kuo (sp. nov.)  
           *Crassialveolites kangningensis* Jian (sp. nov.)

*Acrospirifer tonkinensis* (Mansuy) is a notable form of lower and middle Devonian. It is widely distributed in S. China and in some adjacent regions. *Squameofavosites obliquespinus* (Tschernyschew) is also reported from the Eifelian of USSR and north-eastern China. *Crassialveolites* and *Squameofavosites* range from late Silurian to Devonian, but are common in early to middle Devonian. The tetracoral *Acanthophyllum* is also characteristic for Devonian.

It may be noted that there exists a remarkable difference in the faunal assemblage between the present collection and those of the overlying formation, the Kutaoling Limestone of Upper Middle Devonian. Basing on the foregoing statements, we may now arrive at the conclusion that the age of the fossil-bearing strata is Eifelian.

### Description of New Species

#### Genus *Squameofavosites* Sokolov, 1952

#### *Squameofavosites zueitaiensis* Kuo (sp. nov.)

(Pl. II, figs. 1a, b)

Massive corallum, composed of polygonal corallites of 5—7 sides. This species characterized by thinner tabulae with their intervals ranging from 0.2 to 0.37 mm. Mural pores rather round, arranged in 1—2 rows. Squamuliform septal spines well developed.

Many conspicuous small untabulated circular tubes of verms developed everywhere at the angles and occasionally at the walls of adjacent corallites.

**Remarks:** Our species closely resembles *Squameofavosites sokolovi* Chekhovich, but differs therefrom in the thinner tabulae and the stronger septal spines.

**Horizon and Locality:** Eifelian, Kang Xian, Kansu.

***Squameofavosites linjiangensis* Kuo (sp. nov.)**

(Pl. II, fig. 2)

Corallum massive, composed of small and large corallites. Diameters of small corallites ranging from 0.2 to 0.4 mm, the larger ones being 1.7 to 2.3 mm. The latter being prismatic or somewhat round in outline. Thecae rather thick, measuring about 0.05 to 0.15 mm. Mural pores well developed, often arranged in 1 to 2 rows, about 0.2 mm in diameter. Squamuliform septal spines rare and short.

Tubes of verms rare and arranged at the intersection of corallite walls.

**Remarks:** This species bears some similarity to *Oculipora tschatshiai* Sokolov, but differs therefrom in having squamuliform septal spines, therefore it may be assigned to the Genus *Squameofavosites*.

The present species can be distinguished from the other species of this genus by the rather differentiated sizes of the corallites and by the thicker walls.

**Horizon and Locality:** Eifelian, Wen Xian, Kansu.

**Genus *Crassialveolites* Sokolov, 1955**

***Crassialveolites kangningensis* Jian (sp. nov.)**

(Pl. I, fig. 3)

Corallum massive, composed of small irregularly rounded polygonal corallites, mostly roundly tetragonal or pentagonal in outline. The inner chamber of the corallites being 0.31—0.35 mm in diameter, but probably attaining 0.42 mm at maximum. The thickness of the wall ranging from 0.04 to 0.31 mm, generally 0.07—0.11 mm. Median line rather distinct. Septal spine invisible. Tabulae thin, horizontal and mostly complete, but sometimes flexed and split. The intervals between two succeeding tabulae varying from 0.46—0.81 mm. Mural pores circular or subcircular, being 0.14—0.18 mm in diameter and arranged in a single row.

**Remarks:** Based on the foregoing descriptions the present species should be assigned to genus *Crassialveolites*. It may be distinguished from all known species of Genus *Crassialveolites* by the smaller size of the corallites, the rather well developed median line and the absence of septal spine.

**Horizon and Locality:** Eifelian, Kang Xian, Kansu.