

ZLICHOVIAN--GIVETIAN BIVALVE FAUNA FROM THE PLANKTONIC FACIES (NANDAN FACIES) OF NANDAN, GUANGXI, SOUTH CHINA

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A large amount of pteriomorphs of bivalve have been found in the Zlichovian--Givetian black mudstone-siltpelite in the trough in basin facies-zone of Luofu, Nandan, north-west Guangxi, South China. This fauna consists of 20 species, placed in 11 genera and 6 families, of which 1 family, 2 genera and 8 species are new. It has a very low diversity while compared with the contemporaneous fauna of Xiangzhou facies. This fauna is characterized by: a. Only 2 subclasses, the Pteriomorphia and Cryptodonta of 6 subclasses of Bivalvia were presented in the Nandan facies fauna; b. Among the occurred 6 families: Praecardiidae, Antipleuridae, Lunulacardiidae, Pterineidae, Posidoniidae, and Guangxiconchiidae, the Guangxiconchiidae (fam. nov.) is the most flourishing one. About 80% of individuals of bivalves belong to it. In contrast, the Pterineidae which was very flourish in the Xiangzhou facies, is represented by a small amount of specimens. In the generic level, the Guangxiconcha is mostly developed and distributed from Zlichovian to Givetian; c. This is a basically cosmopolitan fauna, and may compare with the contemporaneous bivalve fauna of the same facies of western Europe and North America. Among 11 genera of this fauna, 7 genera: Ptychopteria(Actinopteria), Cheiopteria, Pterochaenia, Posidonia, Lunulacardium and Buchiola are the cosmopolitan or basically cosmopolitan taxa, while Guangxiconcha, Nandannia and Opisthonia are the endemics to South China. 62% of the species are the endemics; d. This fauna is dominated by the small-sized, thin-shelled and fragile taxa. Except for Buchiola and Ptychopteria, most taxa are ornamented by fine concentric line, or crossed by very weakly radial line; e. About 54% of taxa and 90% of total individuals of this fauna may be the byssal attached epifauna, most of them may be the pseudoplanktonic bivalves.

Seven bivalve zones of Zlichovian--Givetian of Nandan, Guangxi have been recognized, and compared with the associated tentaculitid zones.