

Zdimir and related brachiopod faunas near the Emsian/Eifelian boundary in Austria and China

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The genus *Zdimir* is a special group of large, thick-shelled, strong costate brachiopods which are preserved in dark, rather pure micritic limestones. This brachiopod group and its related fauna is very important for palaeoecological studies, as especially this assemblage could be used as paleoenvironmental marker. It has been reported from South China (Beiliu of Guangxi, Guizhou, Longmenshan of Sichuan), South Tianshan, Japan (Kitakami Mountains), eastern Australia, Belgium and Austria (e.g BAI & BAI 1988, BAI et al. 1998, BOUCOT & SIEHL 1962, TAZAWA 1988 and CHEN & LIAO 2006). Taxa grouped within this genus are restricted in their range from the Late Emsian (*Polygnathus serotinus* Zone) to the Early Eifelian (*Polygnathus c. partitus* Zone) in South China. In Austria only one species (*Zdimir* cf. *hercynicus*) is known from shallow marine limestones of the Devonian Plabutsch Formation (Graz Palaeozoic). Re-evaluation of specimens from the Graz Palaeozoic should determine whether these thick shelled brachiopods are similar to those from South China or not. First observations show that only some of the Graz specimens might belong to the genus *Zdimir* (Fig. 1). Most of the specimens differ from this genus by developing smooth and more ovate valves compared to the rather slim elongated shape of *Zdimir* from China. Based on the material from Austria and South China a taxonomic revision is planned for this fauna which should clear proposed palaeobiogeographic relations.

In case the stratigraphical range of the fauna could be applied for the occurrence of some distinct species of this genus world-wide, it might become a good indicator for the Basal Choteč Event (a globally recognized bioevent during the Early Eifelian), as it seems that some species might have become extinct during this event.

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Fig. 1: A. *Zdimir* cf. *hercynicus* (dorsal, ventral, lateral and anterior view); B. ?*Zdimir* (dorsal, posterior, lateral and anterior view); C. pentamerid brachiopod of the Conchidiellinae (dorsal, ventral, lateral and anterior view); D. pentamerid brachiopod of the Conchidiellinae (dorsal, ventral and lateral view); E. *Zdimir* cf. *hercynicus* (dorsal and ventral view). All specimens were obtained from the Plabutsch Formation of the Graz Palaeozoic and are stored in the Joanneum since more than 40 years.

