

THE UPPER JURASSIC AMMONITE FAUNA OF ERNSTBRUNN (NE AUSTRIA) AND ITS INTERESTING POSITION BETWEEN THE TETHYDIAN AND SUBBOREAL FAUNAS

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An overview will be given on the composition of the famous ammonite fauna of the Ernstbrunn Limestone, which has been collected by F. Bachmayer and studied by the author during the last fifteen years. The ammonite fauna is of Middle to lowermost Upper Tithonian age; the main part (ca.50%) of the ammonites belong to the perisphinctids (six genera, three of them are new); the mikroconchs have been found also in other areas of the Tethys, while the macroconchs are known almost only from here or other localities along the northern margin of the Alpine-Carpatho-Basin. Phylloceratids (ca. 12%), Lytoceratids (25%) and Haploceratids (ca. 13%) compose the other half of the fauna; these are mainly Mediterranean forms; but, considering the dimensions of the shells and the ornamentation they can be regarded as forms that lived mostly in shallow seas.

The high percentage of Mediterranean genera is significant for the position of the locality: it is a 'Klippe' situated at the northern margin of the Alpine geosyncline (Flysch Basin), not far from the original deposition area of the shelf sediments covering the Bohemian Massiv.

As the author demonstrated earlier, the ammonite fauna of the underlying Klentnitz Beds is strongly influenced by immigrants from the Easteuropean Subboreal Province; such influences are scarcely to note in the Ernstbrunn Limestone. However, of special interest are some perisphinctids which display an ornamentation of Subboreal character, i.e. the ribbing style is homeomorphic in some parts of the outer shell to those of genera from the eastern European Platform, while the inner whorls don't differ from other Mediterranean forms. A similar tendency has been observed in the Submediterranean Neuburg Formation of Middle Tithonian age. The reasons for these homeomorphic developments are difficult to explain. Most probably, original quite distinct ribbing styles led sometimes accidentally to similar, homeomorphic sculptures.

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Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Berichte der Geologischen Bundesanstalt](#)

Jahr/Year: 1999

Band/Volume: [46](#)

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Artikel/Article: [The Upper Jurassic ammonite fauna of Ernstbrunn \(NE Austria\) and its interesting position between Tethian and subboreal faunas 127](#)