

CRINOIDS FROM THE LATE JURASSIC – EARLY CRETACEOUS OF THE NUTZHOF SECTION (LOWER AUSTRIA, PIENINY KLIPPENBELT)

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The Nutzhof section, 5 km north of Hainfeld, comprises an 18 metre long succession of strongly tilted, inverse, well-bedded intercalation of marls and limestone. At the base marls and marly limestone bands dominate, being replaced by increasingly pure limestones towards the top. Based on preliminary data from the ammonite, nannofossil and calpionellid data (see Rehakova et al., this volume) the lower part could be assigned to the Early Tithonian and the upper part to the Middle Berriasian.

Microfacies analysis of the more strongly lithified parts of the section revealed high abundances of crinoidal remains, in particular in the lower part. Based on cross section shape these fragments could be tentatively assigned to saccocomid crinoids.

In order to obtain three-dimensional specimens of the crinoids, as well as other microfossils commonly observed in the thin sections (namely foraminifera, ostracods, rhyncholiths, small aptchi, ophiuroid remains, etc.) the marly parts of the succession (i.e. the lower 8 m) were sampled intensely. A first survey of the residues shows high abundances of the

pelagic crinoid *Saccocoma tenella* (Goldfuss, 1831) in the lower 6 metres of the section. The crinoids are represented by isolated radial and brachial ossicles mainly. The former being characterized by their arrow-head like shape with serrated edges and coarse reticulate sculpture, the latter by its disc-like wings (in the proximal brachials). Above, calyxes of phyllocrinid microcrinoids and undetermined columnals appear, while saccocomid remains become rare and vanish. In the upper part of the section bulk sampling was unsuccessful due to low mud content and high lithification of the rocks. Thin sections, however, show that the saccocomid-rich microfacies is replaced by a calpionellid microfacies, that can be interpreted as, more distally situated pelagic limestone facies of deeper waters. It is likely that the observed changes in lithology and microfauna are related to changes of current patterns, possibly caused by geodynamically induced palaeogeographic changes and basinal deepening.

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