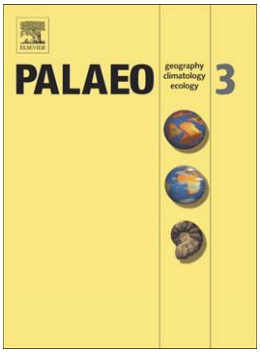

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ABSTRACT

Numerous coprolites are described for the first time herein from the Lower Triassic (Olenekian) shallow marine sedimentary rocks in southern Poland. X-ray Diffraction and geochemical analyses show that they are preserved as calcium phosphate with small admixtures of quartz and calcite. Additionally, SEM and thin section studies revealed that they contain highly fragmented faunal remains (crinoids, molluscs and vertebrates). The size, shape, geochemistry, biostratigraphic distribution and co-occurrence with vertebrate skeletal remains imply that the coprolites at hand were likely produced by nothosaurids and the durophagous actinopterygian (ray-finned) fish *Colobodus*. The large number of recorded coprolites implies that durophagous predation has been intense during the Early Triassic and suggests that the so-called Mesozoic Marine Revolution probably started soon after the end-