

INDICATION OF PARASITISM AND ONTOGENETIC DEVELOPMENT IN THE FOSSIL RECORD – AN ISOPODAN CRUSTACEAN FROM THE LATE EOCENE AS EXAMPLE

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The group Isopoda does not only include woodlice or scavenging representatives, but also a large number of parasites. Isopodan parasites are not only known from extant examples, but have also been described in the fossil record. A collection of exceptionally well-preserved fossil specimens, representing an ingroup of Isopoda, is presented here. Excavated from the late Eocene from freshwater sediments of the Trupelník hill field site near Kučlín, Czech Republic, the specimens are approximately 40 million years old. These fossils are preserved with many details of the appendages being accessible, allowing for some ecological interpretations and comparisons to related extant groups. The morphological characteristics of the fossils were documented using macro-photography with polarised light, as well as stereo imaging. Overall body characteristics, including the trunk appendage morphology, body shape and size, were compared to those of related extant groups. All of the fossils examined were found to be conspecific, representing a single species. The shape and morphology of the trunk appendages suggests that these fossil specimens are ectoparasites, most likely of freshwater or anadromous fish species that were present at that time. Reconstructive illustrations were made of the fossil specimens. The body shapes of these and those of some related extant groups were included in a morphometric analysis for further interpretation of ontogenetic stages available in the material. Our analyses supported an interpretation of two, possibly three preserved ontogenetic stages of the species, including immatures.