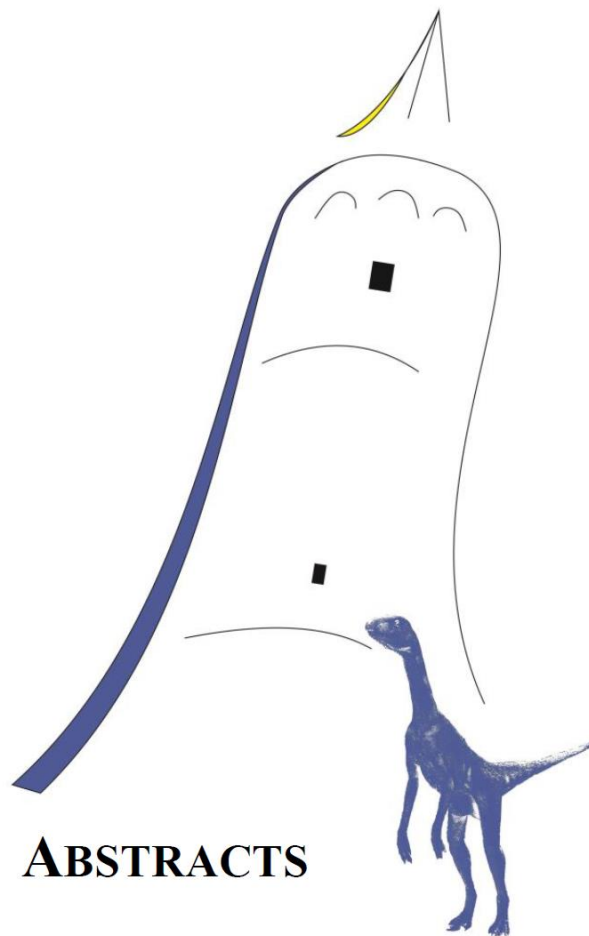


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## **A Late Triassic microvertebrate fauna from the Lipie Śląskie clay pit at Lisowice, Poland**

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We report on the first microvertebrate assemblage from the Keuper of Silesia. Upper Middle-Upper Triassic fossiliferous layers in this region preserve unique assemblages of small vertebrates that originate from different freshwater and terrestrial environments. Late Triassic small vertebrate faunas document aspects of a critical evolutionary transition in the history of terrestrial ecosystems (e.g., origin of lepidosaurs, pterosaurs and mammals). Microvertebrate fossils from the Lipie Śląskie clay pit at Lisowice are compared to the much better-known macrovertebrate diversity from this site and to diverse Late Triassic microvertebrate faunas from North America and Europe. The Lisowice microvertebrate assemblage consists of sharks, actinopterygian fish, small temnospondyls, possibly early anurans, sphenodontids, small predatory archosauriforms (possibly pseudosuchians, early suchians or dinosaurs), early pterosaurs and mammaliaforms. Some of these were not previously recorded either from this site or from the Upper Triassic of Poland. We also found a great number of forms that still elude precise identification and differ substantially from both identified and unidentifiable taxa from other Late Triassic microvertebrate faunas. The Lisowice assemblage provides a glimpse of Late Triassic diversity of small vertebrates, which are usually poorly known from terrestrial deposits of the Germanic Basin. The new diverse microfauna from Lisowice demonstrates the value of screenwashing of bone-bearing and fossiliferous horizons in the Upper Triassic of Poland. Future studies will need to include screenwashing for other Upper Triassic sites (i.e., Miedary, Woźniki, Krasiejów, Poręba), with a spectacular vertebrate record.

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