ACTA PALAEONTOLOGICA POLONICA

First fossil tanaocerid orthopteran insect from the mid-Cretaceous Kachin amber and its palaeogeographic significance

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Acta Palaeontologica Polonica 71 (4), 2026: 687-696 doi:10.4202/app.01364.2026

Desert long-horned grasshoppers (Tanaoceridae) represent a small extant caeliferan group restricted to arid regions of Western North America, particularly the Sonoran Desert. The discovery of the first fossil Tanaoceridae in the mid-Cre-taceous Kachin amber from Myanmar provides new insights into the evolutionary history of this relict group. The new fossil Tanaoceridae inhabited warm and humid forest environments, contrasting sharply with the desert habitats of the extant representatives. This suggests an important ecological shift or restriction over time, likely driven by climatic and environmental changes. The pattern of distribution is discussed, indicating that the Sonoran Desert may represent a refugium for Tanaoceridae, a lineage that was once more ecologically diverse and palaeogeographically widespread.

Key words: Insecta, Caelifera, Acridomorpha, Kachin amber, paleoenvironment, calibration point, mid-Cretaceous, Myanmar.

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