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ABSTRACT BOOK

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Editors

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Extinct thrips-like hemipterans: insight on the biology, behaviour and distribution of Paraprotopsyllidiidae

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Paraprotopsyllidiidae, a family of extinct plant-sucking sternorrhynchans, are reported from the Mesozoic, preserved as either impressions or bioinclusions. At present, the family includes a total of six species assigned to the four genera *Angustipsyllidium* Hakim, Azar & Huang, 2021 (1 species), *Burmapsyllidium* Hakim, Azar & Huang, 2021 (2 species), *Maliawa* Drohojowska & Szwedo, 2021 (1 species) and *Paraprotopsyllidium* Hakim, Azar & Huang, 2021 (2 species). Paraprotopsyllidiidae, distinguished by their particularly small size, display the following characteristic features: antennae 10- or 11-segmented; developed sucking-type mouthparts; distinct thoracic structures; wings with narrowed surface, visible venation, and a long fringe; tarsi two-segmented; anal tube elongated and setose with visible segmentation; female ovipositor with well-developed gonapophyses extended forwards ventrally; male aedeagus completely internalized within the hypandrium. These structures reveal interesting potential functions as the mouthparts and the anal tube suggest paraprotopsyllidiids are probably phloem feeders, possibly secreting honeydew; meanwhile, the long bristles of the wings likely offer an aerodynamic purpose during flight, provide the required surface for efficient flight and contribute to the wings' movement and posture. Few cases of intraspecific aggregation and interspecific cohabitation were discovered in amber between and within some species of Paraprotopsyllidiidae. Moreover, in terms of the biogeographic distribution, most taxa of the family were collected from the mid-Cretaceous Burmese amber, while one species, *P. shouchangense*, was found in the Lower Cretaceous Shouchang Formation from Southeast China, the latter suggesting a possible migration of flying entomofauna from Southeast China to the West Burma Block sometime before the mid-Cretaceous. Additionally, we report a new record belonging to the family from the Middle Jurassic Haifanggou Formation (Daohugou) from North China.