



Updates to *Burmapsyllidium setosum* (Protopsyllidioidea: Paraprotopsyllidiidae)

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Burmapsyllidium Hakim, Azar & Huang, 2021 is an extinct hemipteran genus, known only from amber bioinclusions. To date, it encompasses the two species, *Burmapsyllidium setosum* Hakim, Azar & Huang, 2021 and *Burmapsyllidium grimaldii* Hakim, Azar & Huang, 2022, both discovered in mid-Cretaceous Burmese amber (Hakim *et al.*, 2021, 2022). This genus is interesting amongst the Paraprotopsyllidiidae, as it is the only taxon displaying M two-branched in the forewings—like in other Protopsyllidioidea where M is two-, three- and rarely four-branched—while the rest of Paraprotopsyllidiidae have M simple. In this work, I revise the diagnosis of *Burmapsyllidium setosum* and provide a correction to the morphology of the tarsomeres (claws) observed in the type material.

Material and methods. The fossil was examined and photographed using a Zeiss AXIO Zoom V16 stereomicroscope. This specimen is deposited at the Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences, Nanjing, China.

Order Hemiptera Linnaeus, 1758

Suborder Sternorrhyncha Amyot & Audinet-Serville, 1843

Superfamily Protopsyllidioidea Carpenter, 1931

Family Paraprotopsyllidiidae Hakim, Azar, Szwedo, Drohojowska & Huang, 2021

Type genus. *Paraprotopsyllidium* Hakim, Azar & Huang, 2021, by original designation.



FIGURE 1. Holotype of *Burmapsyllidium setosum* (NIGP173184). Scale bar = 0.5 mm.

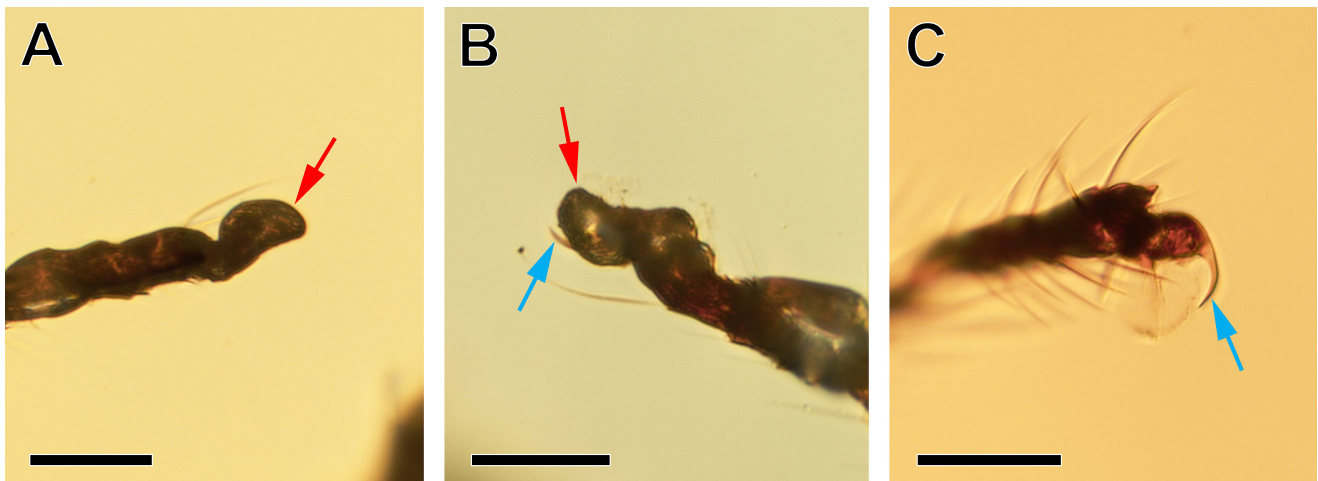


FIGURE 2. Structures at apex of distal tarsomere (red arrow pointed at membranous lobe-like structure; blue arrow pointed at claw). **A, B,** *Burmapsyllidium setosum*. **C,** *Burmapsyllidium grimaldii*. Scale bars = 0.05 mm.

Genus *Burmapsyllidium* Hakim, Azar & Huang, 2021

Type species. *Burmapsyllidium setosum* Hakim, Azar & Huang, 2021, by original designation.

Burmapsyllidium setosum Hakim, Azar & Huang, 2021

Material. Holotype NIGP173184, female.

Emended diagnosis. Apical tarsomere bearing claws enlarged into small lobe at base, and mostly or completely covered by rounded membranous structure (pulvillus?); forewing with common stem MP + CuA about 1/3 the length of CuA, fork of MP slightly less than 1/3 the length of common stem MP and 1/5 the length of forewing, and common stem CuA shorter than areola postica (about 2/3 the length); hind wing with RA evanescent (status unknown in *Burmapsyllidium grimaldii*); female ovipositor longer than that of *Burmapsyllidium grimaldii* but shorter than *Paraprotosyllidium spinosum* Hakim, Azar & Huang, 2021.

Remarks. After the discovery of *Burmapsyllidium grimaldii*, I re-examined the tarsomeres in the holotype of *Burmapsyllidium setosum* (Fig. 1), and have concluded that the claws are indeed present, albeit covered at most times by a lobe-like membranous structure at the apex of the tarsi (Fig. 2).

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