

A new genus and species of the subfamily Ghilarovitinae from Baltic amber (Hymenoptera: Paxylommatidae)

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Astigmaton ichneumonoides gen. et sp. n. (Paxylommatidae, Ghilarovitinae) is described from Baltic amber. A remarkable autapomorphy of this genus is the absence of a pterostigma. This character separates the genus (and probably the subfamily) from other Ichneumonoidea.

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Subfamily GHILAROVITINAE Kasparyan, 1988

The subfamily was established for *Ghilarovites tarsatorius* Kasp. (Kasparyan, 1988) in the family Paxylommatidae. Phylogenetic relationship with Paxylommatidae has been proved by the similar external appearance and shared characters in the structure of the head, thorax, legs, and abdomen (the wings in *Gh. tarsatorius* were lacking). These characters can be summarized as follows: compound eyes enlarged; their inner orbits strongly converging ventrad; temples very narrow; pedicellum enlarged; palpi (supposedly) with reduced number of segments; mesosoma short and high with very short collar; coxae strongly elongate; fore and middle tarsi thin and long; hind tarsi short and thick; tarsal claws minute; tergite 2 of metasoma longer than tergite 1; membranous part of sternite 1 reaching basal 0.3 of tergite 2.

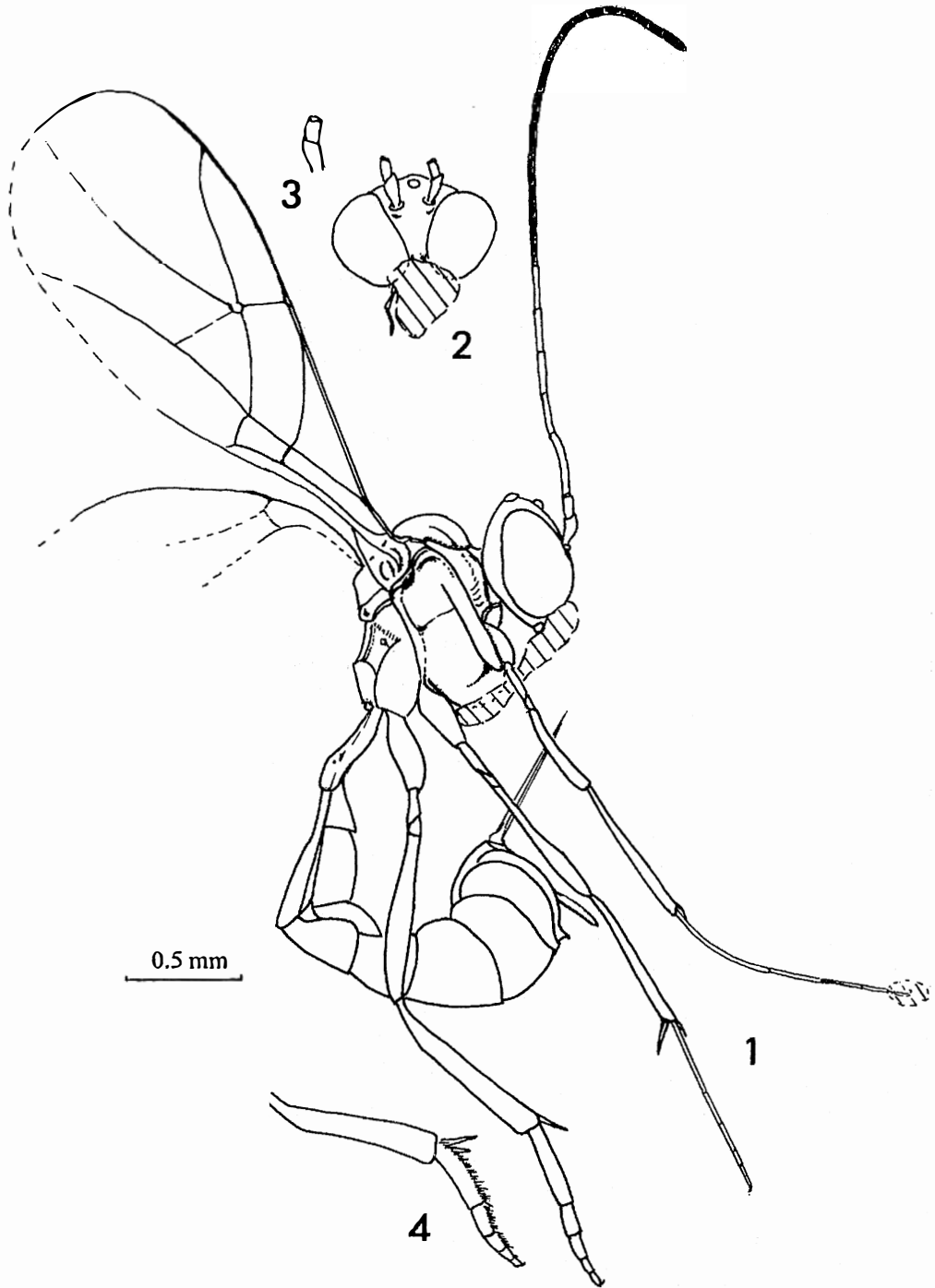
The subfamily Ghilarovitinae can be distinguished from other paxylommatides by the antennae with more than 13 segments, stronger mandibles, presence of notauli, presence of section of *Rs* in hind wing, and, probably, by absence of pterostigma (no data for *Gh. tarsatorius*). The specimen of Ghilarovitinae discussed in this paper is very similar to *Ghilarovites*, but some characters allow its separation into a closely related new genus: upper ends of prepectal carinae longer, not curved upwards to anterior margin of mesopleurum, and apical part of metasoma widened, not compressed. This specimen also provides very valuable data for understanding of the taxonomic position of *Ghilarovites*, as its fore

wings are in rather good condition (Fig. 1). Firstly, the wing venation confirms the highly separate position of Ghilarovitinae relative to Ichneumoniidae: the lack of pterostigma is an autapomorphy separating the subfamily from all other Ichneumonoidea. Secondly, the narrow and long radial cell with very short basal section of *Rs* demonstrates (together with many other characters, see above) close links with Paxylommatidae s. str. In Paxylommatidae s. str., the pterostigma is narrower than in Ichneumonidae, and the absence of pterostigma in Ghilarovitinae may be regarded as the last step in the process of its reduction in this phyletic branch. However, most other characters of wing venation are more similar to Ichneumoniidae. Previously, I considered Ghilarovitinae as a taxon intermediate between Ichneumonidae and Paxylommatidae, and new data confirm this suggestion. Paxylommatinae and Ghilarovitinae form a common phyletic branch early separated from the ancestor of Ichneumonidae. Townesitinae Kasp. (Baltic amber) separated in this period in parallel as a branch of Ichneumonidae. They have wing and leg characters somewhat similar to those of Paxylommatidae and not typical of recent Ichneumonidae.

Genus *Astigmaton* gen. n.

Type species: *Astigmaton ichneumonoides* sp. n.

Description. Small and slender; body length about 3.5 mm. Antenna 0.9 times as long as body, 22-segmented; pedicellum almost of the same size as scapus. Eyes large, with inner margins converging ventrad. Face narrow, al-



Figs 1-4. *Astigmaton ichneumonoides* gen. et sp. n. 1, habitus; 2, head, front view; 3, scape and pedicellum laterally; 4, hind tibia and tarsus.

most flat; clypeal fovea probably vertical (only partly visible). Occipital carina present; hypostomal carina weakly elevated. Mandible edged by carina at the base at lower and upper margins. Malar space short, about 0.5 times as long as basal width of mandible. Maxillary palps at least 4-segmented. Mesosoma about as long as high. Epomia present. Notauli rather strong, reaching middle part of mesonotum. Prepectal carina distinct; its epicnemial vertical, not curved on anterior margin of mesopleurum. Postpectal carina absent. Propodeum with one transverse carina, with a pair of median dorsal carinae before transverse carina. Hind coxa 3 times as long as wide. Fore and middle tarsi very thin and long; hind tarsi short and thick. Wing venation as in Fig. 1. Tergite 1 without glymmae; sternite 1 fused with tergite, its sclerotized part ending on spiracles level; membranous part of sternite 1 ending on the level of basal 0.28 of tergite 2. Tergite 2 1.5 times as long as tergite 1. Apical part of abdomen not compressed; tergites 5-7 somewhat spherical. Ovipositor sheath 0.3 times as long as hind tibia; ovipositor gradually tapering to thin apex, without subapical dorsal notch, about 0.75 times as long as hind tibia.

Astigmaton ichneumonoides sp. n.
(Figs 1-4)

Holotype. ♀, Baltic amber, kept in the Institute of Zoology, National Academy of Sciences, Kiev, Ukraine.

Description. Flagellum filiform; first flagellar segment about 1.5 times as long as second. Body black; flagellar segments 1-5 reddish; metasoma brownish. Other characters as in the descriptions of the subfamily and the genus.

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Reference

- Kasparyan, D.R. 1988. New taxa of the family Paxytommatidae (Hymenoptera, Ichneumonidae) from Baltic amber. *Trudy Vsesoyuz. entomol. Obshch.*, 70: 125-131. (In Russian).

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