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ABSTRACTS

Edited by
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7th International Conference on fossil Insects ,
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Wax and wane of Baltic amber Achilidae (Hemiptera: Fulgoromorpha)

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The Achilidae family of planthoppers (Hemiptera: Fulgoromorpha) appear in the fossil record in the early Cretaceous (*Acixiites* Hamilton, 1990; *Niryasaburnia* Szwedo, 2004). Currently, the family comprises three subfamilies: Achilixinae, Bebaiotinae and Achilinae, the last including 11 Recent tribes: Myconini, Rhotanini, Mycarini, Amphignomini, Plectoderini, Achilini, Achillini, Ilvini, Sevini, Apatesonini and Trophlepsini. The taxic diversity of Achilidae is often expressed by a single or just a few species representing particular tribes. For many of the tribes, the material available in collections is poor, often with just one or two specimens of a single sex. The biological data for the species are very scarce.

The early descriptions of fossils from Baltic amber, from the classical Germar & Berendt (1856) work present several undoubted Achilidae placed in non-achilid genera (Szwedo *et al.*, 2004; Emeljanov & Shcherbakov, 2009). Subsequently, the achilids were described by Cockerell (as cixiid) and by Usinger (1939). The extinct tribes Ptychoptilini (Emeljanov, 1990 – *Ptychoptilum*; Szwedo & Stroinski, 2001 – *Ptychogroehnia*) and Waghilidini (Szwedo, 2006 – *Waghilde*) were described later. Lefebvre *et al.* (2007) added a monotypic genus *Angustachilus* Lefebvre, Bourgoin & Nel, 2007. Emeljanov & Shcherbakov (2009) added three more genera: *Paratesum*, *Protomenocria*, *Psycheona* and discussed Achilidae fossils from Baltic amber.

Surprisingly, the vast majority of the fossils from the Baltic amber are to be placed in the tribe Achilini, in a modern fauna represented by the subtribes Elidipterina (11 modern genera), Achilina (four modern genera) and Cixidiina (a single Recent genus). The last subtribe comprises also the extinct *Protepiptera*, the remaining genera are not ascribed to subtribes.

The former studies on taxic diversity and morphological disparity of Baltic amber Achilidae revealed a number of unique forms, not present among recent Achilidae (Ptychoptilini, Waghilidini), nor ascribable to Recent Achilini (which are not particularly diverse). Achilidae seems to be a relict in the modern fauna, and their taxic diversity is the result of a long evolutionary history. This hypothesis could be tested with detailed studies of the inclusions of Eocene Baltic amber, the probable time of the Achilidae heyday.

No room to include the full reference citations, please contact the author for full details.



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