

Overview and Descriptions of Trichoptera in Baltic Amber: Spicipalpia and Integripalpia

Wilfried Wichard, 2013. Verlag Dr. Kessel, Remagen-Oberwinter. 230 pp. €32.00 (softback). ISBN: 978-3-941300-84-2

Trichoptera is an order of insects commonly referred to as caddisflies. They have winged adults and aquatic larvae, the latter often with strict habitat requirements. Hence, they are often used as biological indicator species for habitat quality, and their fossils also have similar potential for understanding the palaeoecology of fossil environments. These insects are common as fossils in Baltic amber. It has been 200 years since the first Baltic amber species was described, with the first major taxonomic monograph appearing one hundred years later. Now, a century on, a muchneeded revision has just been published, written by Wilfried Wichard who is undoubtedly the leading authority on these fossils.

This volume covers the suborders Spicipalpia and Integripalpia (a second volume on Annulipalpia, which account for approximately 90% of Baltic amber caddisflies, is in preparation). In total, 99



species in 19 families are revised, including the description of 31 new species, eight new genera and one new family. This work is based on the examination of 15,000 specimens between 1970 and 2010, with 1,500 of the taxonomically most informative fossils chosen for detailed examination. These include, where available, some of the historic type specimens described 100 years ago. Fossilized aquatic larvae are also included.

Following a short (three-and-a-half pages) introduction and acknowledgements, there are three short tables as follows: List of acronyms of depositories; Systematic[s] and classification; Genus key to Spicipalpia and Integripalpia in Baltic amber. The remainder of the book, apart from five pages of references at the end, is essentially a taxonomic monograph. Taxonomic keys are presented where necessary; these are all based on taxa preserved in Baltic amber and use characters that are likely to be observed in the fossils. The keys to genera also list the number of relevant species in parentheses.

For the various species the following headings are used: Type; Etymology; Diagnosis; Description; Remarks. However, for some species there is no description, but rather a lengthy, descriptive diagnosis. Maintaining a succinct and specific diagnosis, followed by a separate description, would have been a better approach. The descriptions are supported by line drawings and colour photographs. The illustrations are excellent, but the photographs have not been reproduced at the highest possible quality. This was no doubt a production decision and is reflected in the relatively low price for such a specialist volume. Nonetheless, they are perfectly fit for purpose. Unusual



specimens are also described and illustrate parasitism by nematodes, teratological deformities and a pair preserved *in copula*. The figures are numbered up to 145. However, each of these often has several parts (a, b, c, *etc.*), so in reality there are considerably more than this.

Throughout, only very brief references are made to other fossil localities, biogeography and recent systematic studies. This is very much a taxonomic monograph of Baltic amber Trichoptera and I feel that the opportunity to provide a more informative summary of data has been missed, particularly given the large number of fossils that formed the basis of this study. Maybe this is something that will be incorporated into the Annulipalpia volume that is currently in preparation.

In terms of physical production, the paper quality and binding are excellent. The illustrations are all of a good size. Unfortunately, typographical errors and inconsistencies abound throughout; the former in many cases are clearly due to a lack of familiarity with English spellings. The latter would have been picked up with better proofing. However, on the whole the English is very good and these minor errors do not detract from the functionality of the volume.

Despite these few quibbles, this is an impressive volume representing, in part, the culmination of several decades of study by the leading expert in the field. It forms a reliable reference work for these suborders of Trichoptera in Baltic amber and will be of interest to anybody with an interest in Baltic amber inclusions or fossil caddisflies, whether amateur or professional.

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