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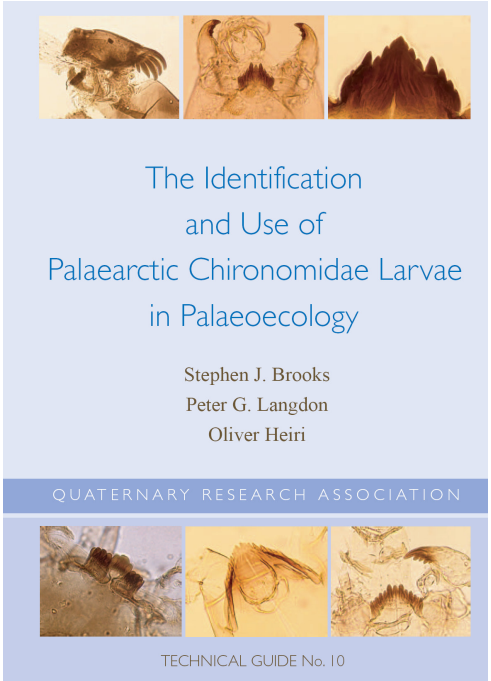
Stephen Brooks, Peter Langdon and Oliver Heiri 2007:
The Identification and Use of Palaearctic Chironomidae Larvae in Palaeoecology.
Quaternary Research Association, Technical Guide 10, 276p. ISBN 0907 780 717.

Order at http://qra.org.uk/technical_guides.htm, costs are £14 (± 21 euro) for QRA members and £20 (± 30 euro) for non-members.

This beautifully crafted guide is what many a (sub)fossil chironomid worker probably waited for: a detailed description of the morphology of the remains of chironomid larvae and the ecology of their living predecessors in the Palaearctic.



The first chapter is a short introduction to Chironomidae and their use in palaeoecology followed by a chapter on the biology and ecology of living chironomids and a discussion of taphonomy of chironomid records. The third chapter describes the methods to obtain, process and prepare samples for chironomid analysis.

In the forth chapter an introduction is given to the identification of subfossil material and should help the reader to identify his/her material to subfamily level. Six clear drawings are presented to explain the key features that are used in the identification keys. The remaining chapters 5-11 all start with the taxonomic keys of different subfamilies that can be used to identify remains to the level of genus, species group or sometimes even species. These keys are followed by a detailed description per genus of the morphology and ecology of the species groups involved. A neat feature are the 'similar taxa' paragraphs for each genus that describes look-alike taxa and how to tell them apart. Each chapter is illustrated with a large number of full colour photographs that are of great use for identification. The last chapter provides a very useful set of photos of some other aquatic insect remains that are often encountered in lake sediments (and will be identified from now on).

A little point of critique is that not all features used in the key may be clear to the beginner as there is no explanation of certain characteristics. For example, what does a 'foot-shaped' ventromental plate look like in certain Orthocladiinae? And why should we define the ventromental plates of the Tanytarsini as 'sausage-shaped' and not, for example, banana-shaped? On the other hand it must be said that no expert knowledge is needed on morphological nomenclature and the guide can be easily used by the layman as well as the expert.

The photos in the book are generally sharp and of sufficient quality to recognize fossil or subfossil head capsules of chironomid larvae in sediments (although recognizing key features in some of the photographs is probably not possible for the non-specialist). The book is not expensive for the full-colour print on high quality paper and its easy to flip through the pages thanks to its spiral binding. In short, a great and practical guide and an absolute must-have for anyone working with (sub)fossil chironomids or remains of aquatic insects in general.

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