Zootaxa 3640 (2): 101–151
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3640.2.1
http://zoobank.org/urn:lsid:zoobank.org:pub:1E1867C3-E186-4B71-8AEA-1A95DEBE4E53

Key and bibliography of the genera of European Trichoptera larvae

JOHANN WARINGER[1] & WOLFRAM GRAF[2]

[1]*Department of Limnology, University of Vienna, Althanstrasse 14, A-1090 Vienna, Austria. E-mail: johann.waringer@univie.ac.at*
[2]*Institute of Hydrobiology and Aquatic Ecology Management, University of Natural Resources and Life Sciences, Vienna, Austria. E-mail: wolfram.graf@boku.ac.at*

Abstract

The paper provides a synoptic key to the genera of final instar European Trichoptera larvae. The most important characters are illustrated by colour photos, with arrows highlighting the diagnostic features. A short descriptive text gives additional information for each decision and guides the reader through the determination process.

Key words: Trichoptera larvae, final instars, synoptic key, genera, Europe

Introduction

Based on the inventories of Graf *et al.* (2008a) and Malicky (2004, 2005), the European Trichoptera fauna encompasses 23 families (including Arctopsychidae and Ptilocolepidae, but excluding Apataniidae which is seen as a subfamily of Limnephilidae) and a total of 133 genera (including *Alpopsyche* Botosaneanu & Giudicelli 2004). Hitherto, no effort has been made to construct a key to all genera of European caddisfly larvae. There are good reasons for this: there is still a severe lack on larval descriptions; in fact, in approximately a fifth of all Limnephilid genera not even one larval description exists. Another difficulty is the fact that many genera are very heterogeneous which means that a given genus often keys more than once in the tables, possibly reflecting a polyphyletic status of the taxa. Finally, there are still debates on existing genus or even family concepts which will probably continue for a long time (*e.g.*, *Stenophylax* versus *Micropterna*, *Dinarthrum* versus *Lepidostoma*, Arctopsychidae versus Hydropsychidae). Despite these shortcomings we feel that a first attempt on a key to European caddisfly genera has to be made in order to define and highlight the research deficits in larval taxonomy and to present a first and preliminary overview of the current knowledge. As a key format, we chose to use the proven synoptic layout which is also the basis for the Atlas on Central European Trichoptera larvae (Waringer & Graf 2011). The key uses all hitherto published larval descriptions we are aware of that are valid for European ecoregions 1 to 25 of the inventory by Graf *et al.* (2008), excluding only ecoregions X (North Africa) and Y (Asia Minor and Middle East; Fig. 1). The identification of Central European taxa to species level can be done by using the Atlas of Waringer & Graf (2011). In cases where only one species of a given genus is present in the area of this key, a note has been added. With respect to nomenclature and taxonomy, we closely follow Malicky (2004, 2005). Valuable additional information was obtained from the works of Morse (2011, 2012).

Material and methods

The information for constructing the key has been obtained by several methods:

(1) Rearing: Adults were collected by using a hand net or a light trap. In the laboratory, females which had already copulated in the field were individually transferred to small plastic boxes lined with wet moss for oviposition. After oviposition, adults were preserved in glass vials containing ethanol (70%) and

Accepted by J. Morse: 25 Feb. 2013; published: 17 Apr. 2013