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BOOK REVIEW

HOLZINGER W.E., KAMMERLANDER I. & NICKEL H.: THE AUCHENORRHYNCHA OF CENTRAL EUROPE. DIE ZIKADEN MITTELEUROPAS. VOLUME 1: FULGOROMORPHA, CICADOMORPHA EXCL. CICADELLIDAE. Brill, Leiden-Boston, 673 pp. ISBN 90-04-12095-6. Price EUR 130.- (hardcover).

The first volume of this three book monograph was published in May 2003. The book is in English and German - with introductory chapters in both languages and parallel columns in the two languages in the keys and descriptions of species.

This monograph fills a major gap in the determinant literature on the Auchenorrhyncha of Central Europe now that the works by Melichar (1896) and Haupt (1935) are out-of-date and do not reflect modern taxonomic standards. Hitherto, a scholar interested in this group of insects had to use keys for specific areas of Europe, particularly those by Ossiannilsson (1978, 1981, 1983), Le Quesne (1960, 1965, 1969), Le Quesne et Payne (1981) and Emeljanov (1964), or, for the family Cicadellidae

only, Ribaut (1936, 1952) as well as additional book for the two last by della Giustina (1989). Other valuable books exist but they are not printed in any of the important world languages.

This book is arranged in a modern way. It has 673 pages and 284 plates, each with 3–15 line drawings. In addition, there are 45 plates, each with 9–23 excellent colour photographs of macropterous and brachypterous adults of both sexes. The line drawings are sufficiently large so that the differences in the shapes of the terminalia and acoustic apodemes of individual species are clear. The timely publishing of this book was facilitated by permission to copy the excellent illustrations (line drawings) made by Ossiannilsson (1978, 1981) in the series “Fauna Entomologica Scandinavica”. The authors have to be congratulated on the quality of the new illustrations in this book. I. Kammerlander’s original illustrations are of the same high quality as those in Ossiannilsson (1987, 1981). But the original very good line drawings are in this book poorly reproduced because of faulty scanning - the outlines are blurred. This is

unexpected in a book produced by a renowned publishing house such as Brill.

Despite its size the determinative part of the book is concise, but very informative. The keys and descriptions of individual species are particularly brief but accurate and include the most important characters. The main emphasis in this modern presentation is on the many large line drawings of the characteristics, photographs and maps of the distributions of individual species in Central Europe. The maps are much more informative than the verbal notes in other publications.

It is unusual, but greatly appreciated, that the introductory chapter covers not only the history of the research on Auchenorrhyncha in Central Europe, but also biographies of the most important scholars accompanied by well reproduced photographs. The biography part, written by E. Emmrich, M. Sundblad and J. Petterson, include those scholar's who were at least 65 years old when the book was published.

Furthermore, the position within the Hemiptera of the Fulgoromorpha and Cicadomorpha, based on the most recent concepts, is briefly discussed. The basic morphology of the two groups, as well as methods of collecting and mounting of specimens and their preservations, qualitative and quantitative methods of collecting and their convenience for biocenological research on Auchenorrhyncha are also presented. The book lacks an index of the basic terms used there. As the book is intended also for beginners and people working on plant protection and nature conservation, such an index is necessary. Probably the authors intend to include it in the last volume.

In spite of the fact that all the authors are young, they are the top specialists on Auchenorrhyncha and have produced an excellent piece of work. It is well documented by their original and novel taxonomic results: one new genus is erected, seven new combinations are made within genera and ten new synonyms recognised. Six designations of lectotypes or neotypes are made in order to the nomenclature stability of the species named there. Each species has its actual name and its original binomen combination, important synonyms, references to illustrations, length of specimens, general distribution and a map of the distribution in Central Europe. Naturally the maps give an orientational features rather than exact data. For instance, *Conomelus dehneli* and *Megamelodes quadrimaculatus* in the Czech Republic is restricted to two or three little areas in southern Moravia. In contrast, *Metropis inermis* occurs in larger area (particularly in Bohemia) than shown on the map. However, as the research is not yet complete, this is not a serious discrepancy.

A slight imperfection of the book: the illustrations of terminalia are not on the same pages as the text on the individual species, which is inconvenient as readers must leaf through pages in order to compare the text with the illustrations.

This book will particularly facilitate research on Auchenorrhyncha by specialists as it covers all the new interpretations and illustrations, especially of groups that are not yet completely covered by modern keys, such as the families Cixiidae and Tettigometridae and the genera *Kelisia*, *Chloriona* and others. Undoubtedly, this work will be widely used for the identification of Central European Auchenorrhyncha. As the book is concisely written, it will be an invaluable source of data and information for workers in plant protection and especially those in nature conservation who will be interested in the list of German and scientific names of individual taxa.

Unfortunately, in some species of Auchenorrhyncha very significant changes of morphology and coloration occur due to parasitisation. Therefore, the fact that only healthy and com-

pletely coloured adults, which are not parasitized, can be identified using this book, can be considered an imperfection. It is recommended that such abnormal adults should be treated in a special chapter, along with the changes that occur with age, in this case especially in the coloration of the body and shape of the acoustic apodemes. Some changes in size, coloration and shape of terminalia may also occur in some few species in response to photoperiod. The most significant parasitoids causing morphological changes of the body of Auchenorrhyncha are those of following families: Dryinidae (Hymenoptera), Pipunculidae (Diptera) and some Strepsiptera. Beginners particularly are likely to be puzzled by such specimens. Probably a chapter on such possible abnormalities will be included in the last (third) volume of the series.

This book, and the next two volumes, will certainly stimulate interest and research on this group of insects.

Because of the modern arrangement, thoroughness and comprehensible nature of this work, plus the plentiful illustrations, it can be recommended as an excellent guide to Central European Auchenorrhyncha. I look forward to the next two volumes in the series, which I assume will be arranged in the same way.

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