

## Book review – Phytophagous universe: on leaf-, plant-, frog-, and treehoppers

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Strümpel, Hans 2010. **Die Zikaden**. Die neue Brehm-Bücherei, Vol. 668, Westarp Wissenschaften, Hohenwarsleben. 267 pp. ISBN 978-3-89432-893-1. € 49.95 [softcover]

With ca. 45,000 described species the Cicadina or Auchenorrhyncha are the largest hemimetabolous insect taxon. While the majority of species are tropical or subtropical, there are ca. 800 species in central Europe. Exclusively phytophagous, Auchenorrhyncha are characterized by their highly specialized sucking mouthparts, and known to feed on xylem, phloem or suck the content of plant cells. Correlated with this specialized diet are trophic interactions with endosymbiotic organisms (such as bacteria and fungi) and mutualistic relationships with other animals feeding on Cicadina excretions (honey-dew), among them ants, lizards, moths, and snails. Concerning their host range, Cicadina species display varying degrees of specialization, some being extremely polyphagous, while others are oligophagous to monophagous: some species utilizing a single plant species. Consequently, Cicadina play an important role in virtually all ecosystems, with some species causing serious problems for crops such as rice, corn, cotton, sugarcane, potato, and grapevine. While the Cicadina are rather modest in regard to body size (less than 10 mm in most species), they are insect record-holders in regard to nymphal development (17 years), and sound-intensity (80–100 decibels at a distance of 18 m).

Yet, the Cicadina are much less well known and appreciated by the general public than other insect groups, such as, for example, the odonates, let alone beetles and butterflies. This is partly due to the visual inconspicuousness of most of the Cicadina species, but also attributable to the lack of high-quality literature geared towards the entomologically inclined yet non-specialist naturalist. Hans Strümpel's book superbly fills this gap. This well-written and amply illustrated book (most b/w, some colour photographs, in good quality) summarizes current knowledge on these fascinating insects by covering a broad range of topics such as the Cicadina's role in human culture, their systematics and evolution, their morphology and phylogeny, aspects of

reproduction and physiology as well as their ecology and economic importance. The book also gives practical advice on how to collect, rear and identify Cicadina, thus encouraging young aspiring entomologists to specialize in this group.

Hans Strümpel capitalizes on his vast experience in teaching entomology for many years at the University of Hamburg where I had the privilege to attend some of his hugely popular lectures. Not only does the book provide information of highest scientific standard as Hans Strümpel is one of the most renowned Cicadina specialists of our time, it virtually radiates the author's enthusiasm for "his" group, and thus makes for extraordinary enjoyable reading.



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The book is an invaluable source of information on the Cicadina, and is highly recommended for anyone even remotely interested in insects. If there is any draw-

back at all, it would be that it is written in German – the book certainly deserves a much wider audience.

At € 49,95 it is very reasonably prized.

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