

## Review

Pfeffer, A. 1995: Zentral- und westpaläarktische Borken- und Kernkäfer (Coleoptera: Scolytidae, Platypodidae). — Pro Entomologica, c/o Naturhistorisches Museum Basel. 310 pp. ISBN 3-9520840-6-9. CHF 45.

The ecology, taxonomy and systematics of the bark beetles (Scolytidae and Platypodidae) have been intensively studied for decades. However, even though these insects play a significant role in forest ecosystems, many of them are known as major pests of woody plants, there are only few textbooks concerning their identification. The present book is the first one to cover the taxonomy of bark beetle species from all over Europe even including the eastern element of the fauna comprising a total of 311 species. The information presented in the book is based on Dr. Antonín Pfeffer's 70-year-long experience in the forests of the Central and West-palaearctic regions of Europe.

The contents is divided into seven separate sections. The first section briefly describes the biology of bark beetles, such as host plant selection, insect-fungi associations, life cycle, mother gallery construction, and species occurrence in different parts of the tree. In addition, the bark beetle fauna is divided into 14 tables according to their geographic distribution in the area. The second section gives a very short overview of the bibliography of the bark beetles.

Bark beetle taxonomy is covered in the third section. It gives usable and well thought out keys for the identification of families, subfamilies, tribes, genera and species. The species concept is dealt with in a manner which would be familiar to most taxonomists. The keys are based on morphological characters, but in some difficult cases (e.g. *Polygraphus*, *Dryocoetes*) chemical markers or pictures of genitalia would be valuable. All Central European species seem to be dealt with. The reliability of the keys is increased by the fact that only specimens which have been seen by the author have been included.

Comparison with Silfverberg's (1992) *Enumeratio Coleopterorum Fennoscandiae, Daniae et Baltiae* shows some differences in the species status and geographical distribution. *Crypturgus cinereus* and *C. subcribosus* have been combined in the present book but they are treated separately in the *Enumeratio*. *Carphoborus teplouchovi* is said to occur in northern Finland, but does not belong to the Finnish fauna according to the *Enumeratio*. *Hylurgops starki* is not mentioned but occurs as a species in the *Enumeratio*. Finally, *Polygraphus*

*griseus* is regarded as a species, but there is some confusion here according to the *Enumeratio*. The status of the family Scolytoplatypodidae remains a bit obscure, it occurs in the key, but not in the text owing to its even more eastern distribution. These minor differences indicate that future work on bark beetle systematics would require a more sophisticated methodology.

An excellent compilation of host plants and bark beetles is given in the fourth section. The list nicely shows plant species of high bark beetle richness, but it also highlights species which are associated with one bark beetle species only. Though the compilation is highly necessary as such, more information on the ecological relationships between trees and bark beetles would increase the usability of this section. The next two sections cover the literature which is divided into monographs, bibliographies and some important studies, and an index. The literature gives a comprehensive view especially on the older, often ignored references, but some more recent titles are missing.

The seventh section gives illustrations of selected bark beetles. The drawings are clear, but have been mainly adopted from previously published literature and, consequently, do not follow any stylistic uniformity. Scanning electron microscope micrographs and photographs of gallery systems give supplementary information on species identification, but there is a lot of variation in the quality especially in the photographs. The position of all illustrations at the end of the book is an inexpensive solution, but it unfortunately hampers the use of the book as an identification guide. Also the audience of the book would be wider if it had been published in English instead of German.

The critical comments above are not serious ones. *Zentral- und westpaläarktische Borken- und Kernkäfer* is an important and welcome book presenting a new bark beetle species assemblage. Due to its solid packaging of information, handy size and moderate price this book will be a useful and informative companion for both forest entomologists and insect taxonomists.

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