Eur. J. Entomol. **103**: 60, 2006
ISSN 1210-5759

BOOK REVIEW

EISNER T.: FOR LOVE OF INSECTS. The Belknap Press of Harvard University Press, Cambridge, Massachusetts, and London, UK, 2004, xiii + 448 pp. ISBN 0-674-01181-3, hard cover. Price USD 29.95, GBP 19.95.

As emphasized in the foreword by E.O. Wilson, the vast majority of organisms, surely more than 99% when plants, invertebrates and microorganisms are considered, orient, communicate, reproduce, subdue prey and defend themselves by chemical means.

As very apparent from the chapter headings, nearly all the aspects of a nascent field of biology, namely chemical ecology, are taken into account. Naturally, predominantly model species of insects are dealt with in detail (e.g. the ornate moth, *Utetesia ornatrix*, is mentioned in many chapters), but chemical communication in numerous other organisms like e.g., spiders, millipedes and vertebrate insect predators is also considered.

Thomas Eisner was born in Berlin, Germany in 1929, and graduated at Harvard University in 1952, and is one of the pioneers in the study of chemical communication, especially the use of pheromones in courtship and understanding of defence mechanisms. This excellent book is based on hundreds of original papers in research journals and his experiences as both a laboratory experimentalist and field biologist in Uruguay, Australia, Panama, Europe and North America.

Besides the prologue and epilogue, the book consists of 10 chapters called Bombardier, Vinegarons and other Wizards, Wonders from Wonderland, Masters of Deception, Ambulatory Spray Guns, Tales from the Website, The Circumventers, The Opportunists, The Love Potions and The Sweet Smell of Success. For instance, the chapter entitled The Love Potions (pp. 327–347) deals with a well-known insect toxic substance, cantharidin. Eisner describes not only its structure, synthesis and toxicity, occurrence in numerous beetle families, effects on other insects (e.g. bioassays on drinking rate in ants and mouthpart cleaning behaviour in carabid beetles) but also the fate of cantharidin in predators (spiders, frogs and birds) and its aphrodisiacal effects on man (in, as he says, the pre-Viagra years). Non-specialists will be surprised to read that cantharidin is not necessarily synthesized in both sexes in meloids (males transfer the compound to females with the sperm package at mating) or that the phenomenon of "cantharidiphilia" is now well documented in representatives of all major insect orders, Coleoptera, Diptera, Hemiptera and Hymenoptera.

Text of individual chapters is accompanied by several hundred of illustrations of an excellent quality. They include photographs of model species and their "ethological relatives", detailed pictures of structures related to chemical communication, scanning electron microphotographs, graphs, line drawing of chemical formulas of the substances in question, structural and anatomical details as well as sketches of laboratory experiments, micromanipulators etc.

The Bibliography contains a list of more than 300 references grouped in a paragraph called "General readings" and a further 10 paragraphs referring to individual chapters. The index at the end of book is a desirable combination of an index of scientific names, facilitating orientation, and references to genera, species and higher taxonomic groups of insect and other animal and plants, a subject index including chemical substances and an index of the authors mentioned in the text.

Hundreds or possibly even thousands of books on insects, targeted at the public, nature lovers, beginners in entomology and environmentalists have been published. Naturally, their quality varies from mere compilations, detailed, but rather time-consuming descriptions of insect morphological adaptations to fascinating collections of photographs and other illustrations. In my opinion, Eisner's book undoubtedly belongs to the "top ten" and is the master entomologist's masterwork. In this book Eisner shares his world with seamless and beautiful prose and no naturalists or natural scientist will want to be without this book.

T. Soldán