

## BOOK REVIEW

HODEK I. & HONĚK A.: ECOLOGY OF COCCINELLIDAE. Kluwer, Dordrecht, 1996, xvi + 464 pp. ISBN 0-7923-4177-5. Price GBP 143.00.

Twenty-three years after the issue of the book, *Biology of Coccinellidae*, by Ivo Hodek, efforts concentrated on the ecological and ecophysiological studies of this family, and after the inclusion of intensively growing information, a new, comprehensive and critical review of almost all aspects of the life of ladybird beetles was published. The authors announced the issue of their child at the symposium Ecology of Aphidophaga 6 to colleagues in the field who were eagerly awaiting it.

Much was added to the new book, and it is almost twice as thick as the first one, although the chapter with identification keys of larvae was omitted. The chapter on *Morphology and anatomy* of adults, written by Ivo Kovář from the National Museum, Prague, was kept due to its great importance for explaining feeding specialization and other ecological traits. The same contributor greatly enlarged the chapter on the *Phylogeny* of the family, containing his modern view on the systematic classification of Coccinellidae.

The chapter *Variability and genetic studies* (A) (in the following text I will indicate the authorship of a chapter by Hodek by "I" and that by Honěk by "A") was extended, among others, by the review of numerous studies on the relationship between frequency of colour forms of *Adalia bipunctata* and climatic and other ecological conditions (including industrial melanism). The chapter *Life history and development* (A) increased five fold, although several graphs were omitted. In the chapter *Distribution in habitats* (A & I), much attention is given to the role of prey abundance, microclimate, and host plant for the formation of a coccinellid community. The list of examples of coccinellid communities in certain crops was updated.

The original terms *essential*, *alternative*, and *rejected* prey are well explained and documented by examples in the chapter *Food relationships* (I).

There is a table continued through six pages which contains list of essential prey species for many coccinellids. Please note that the explanatory text continues after the table and even another small table. A valuable description of behavior related to food follows. Because *Dormancy* (I) is a topic of special interest of the senior author, the chapter contains an instructive general survey on diapause of insects in addition to the descriptions of physiological and ecological mechanisms involved in diapause of coccinellids. Among *Enemies of Coccinellidae* (by Piotr Ceryngier, Poland, & I), the braconid wasp *Dinocampus* (formerly *Perilitus*) *coccinellae* is the best studied antagonist.

For those interested in the question how (if at all) coccinellids are efficient in reducing pest populations, the chapter *Effectiveness and utilization* (I & A) is useful. You may trace a conflict between optimization of predation, which could largely decrease the chance of efficient control of pests (mainly aphids), and uncontrolled voracity and reproduction having resulted in several documented cases of control programs.

The appreciable work is accompanied by a list of more than 1,700 references; by author index; taxonomic indices separate for coccinellidae (scientific names are given with names of author(s) of description), parasites and pathogenes (the same), and other organisms (mostly aphids; without authorship); and a subject index.

Acquisition of this book in yellow hardback is a must, in spite of the price, for everyone studying not only coccinellids, these lovely, handsome creatures, but also aphids, coccids, mites, their predators, or ecology of other arthropods. I have appreciated that the book is not a mere collection of data, but it represents a critical analysis of most problems and on many places points out the gaps in our knowledge. Therefore it may be valuable for people looking for subjects for a university thesis.

O. Nedvěd