BOOK REVIEW


The 9th International Symposium on Insect-Plant Relationships, which took place June 24–30, 1995 in Gwatt in Switzerland, followed the tradition established in 1958 and was a forum for investigators in both basic and applied entomology. Participants from 26 countries throughout the world presented 12 keynote lectures and a total of 141 oral presentations and posters. The proceedings volume contains 72 contributions, summarizing both lectures and posters that were peer-reviewed by two independent referees.

The Proceedings include an Introduction (by L.M. Schoonhoven from the Agricultural University in Wageningen, The Netherlands) that is devoted to major advances in the study of insect-plant interactions that have taken place during this century. Author contributions are divided into eight chapters, each devoted to a major area of insect-plant relationships. Traditional approaches and perspectives in insect plant studies are summarized by T.R.E. Southwood from University of Oxford, UK, in the Conclusion. The Proceedings are supplemented by a General Index, Index of Authors and List of Registered Participants.

The first chapter, Sensory Physiology, begins with a review of the chemosensory basis of feeding and oviposition behaviour in herbivorous insects. Further contributions include information regarding the role of olfactory and plant odour receptor neurones in insect behaviour. The second chapter, Behaviour, is devoted to nutrient requirements of insects and effects of feeding deterrents and attractants on insect behaviour. A short section, Techniques for Sensory Physiology and Behaviour, is followed by Insect Ecophysiology, which contains twelve contributions that examine host-plant specialization and plasticity of insects. The first contribution in this chapter discusses the significance of selective attentiveness of insect herbivores. Results of several of the studies discussed in this section demonstrate high insect adaptability to atypical host plants. Plant Variability begins with a review of diversity and variability of secondary plant metabolism. Most of these studies focused on compounds that provide the plant with protection from insects. Plant Resistance concerns factors of plant resistance to insects, physiology, and the costs of resistance to herbivory and diseases. The first contribution of the chapter Interactions and Mutualism concerns host-plant relationships of lycaenid butterflies, their interaction with plant chemistry, and their mutualism with ants. Following contributions discuss different aspects of symbiosis and trophic interactions among parasitoids, insects and hosts. Four contributions of the last chapter, Evolution, examine pattern and process in the evolution of insect-plant associations, involving plant defense, geographic variation and local host preference.

This volume provides comprehensive coverage of the large field of insect-plant relationships. Every contribution is of high scientific quality and contains many valuable references. The book contains up-to-date useful information and is thus indispensable for all specialists in this wide and important field. The reason insect-plant relationships attract more and more attention was well-explained by Professor Schoonhoven: “The green blanket on the earth’s surface with its myriads of insects has already revealed some of its complex workings, but contains many more facets which need to be discovered to gratify our insatiable curiosity, as well as help to improve agriculture production.”

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