

## Literature

Bailey, W. J. & Rentz, D. C. F. (eds.) 1990: *The Tettigoniidae Biology, Systematics and Evolution*. 395 pp., 177 black-and-white and 20 colour illustrations, 13 tables. Size 17.5 × 25.0 cm. — SpringerVerlag, Berlin, Heidelberg, etc. Hardbound, ISBN 3-540-52819-9 & 0-387-52819-9. Price 198 DEM.

The powerful song of the bush-crickets (Tettigoniidae) is a pleasant component of the short Scandinavian summer, following us long into the dark and cold autumn nights. These insects once had an important role in folk medicine in the process of the removal of warts. This duty has now been taken over by physicians, and instead the bush-cricket has turned to scientists for "human contact". Winston J. Bailey and David C. F. Rentz are two well known authorities in the field of bush-crickets and they have gathered an expert team of 19 authors to contribute their knowledge to this volume.

In an introductory chapter, the editors offer a short background to the diversity and biology of the Tettigoniidae. The next three chapters deal with the general biology of the Tettigoniidae. Here the different types of defensive behaviour adaptations are described, accompanied by 20 superb colour plates, showing a good selection of defences, including one excellent case of wasp mimicry. The reproductive behaviour is described with emphasis on the important roles of the spermatophore as a vessel for the transfer of semen and as a nuptial gift to the female. The biology of the egg stage is devoted to embryonic development and its diapause and various strategies of life cycle adaptations.

The next five chapters are devoted to the acoustic behaviour of the Tettigoniidae and describes *inter alia* the evolution of acoustic behaviour in general and song patterns in particular. The acoustic behaviour of the males, communication between the sexes and interspecific interactions is described. These chapters include numerous illustrations of acoustic behaviour, like oscillogram recordings, etc.

The following two chapters describe the neuroanatomy of the ear, wings and mouth-parts, as well as the central nervous system. The anatomy of the ear is described separately and here different types of ear structures are discussed. Two accompanying chapters deal with the transmission of the airborne and the substrate vibratory sound, and the location of the sound source by the receiving animal.

The last four chapters deal with various topics. A short account is given of speciation in the Australian genus *Mygalopsis*. A more comprehensive treatment is afforded the genus *Saginae*, including biological aspects on the life history and a key to the genus and subgenus. The karyotypes and meiosis of 54 of the 72 described Australian Tettigoniidae are described in detail, together with an example of chromosomal evolution. The last chapter deals with the classification of the world Tettigoniinae, lists the some 130 known genera, and discusses their interrelationships. Finally, an appendix is included listing Dr. D. R. Ragge's publications, to whom this book is dedicated upon his retirement from the British Museum (Natural History).

In an edited multiauthor book, it is inevitable that a certain unevenness of quality should creep in. However, in this case I was delighted to come across only minor defects. Some illustrations are now oversized for no apparent reason. Some of the researchers in the field are missing, but apparently their fields of expertise have been covered by close colleagues, so it seems likely that the book covers most aspects of Tettigoniidae biology. Perhaps some short contribution by B. Baccetti on the sperm ultrastructure would have been of interest. The description of the anatomy of the auditory organs and their neuroanatomy should preferably have been located earlier in the book, before the sound is described.

This book fills an apparent lack of relevant modern literature. Hopefully it will remain as a standard volume like its predecessors: Chopard, L., 1938, *La Biologie des Orthoptères* (Paris), and Beier, M., 1972, *Saltatoria (Grillen und Heuschrecken)* (Handb. Zool., Berlin), both of which at publication summarized the knowledge of the time. The new book is of high quality and I am happy to congratulate the editors and the publisher upon a nice and most valuable publication. Due to the high standard overall I find the price tolerable.

Ulf Carlberg