

Zumt F.: The Stomoxyine Biting Flies of the World. 175 pp., 97 black and white illustrations, Gustav Fischer-Verlag, Stuttgart, 1973

In the present concept the subfamily Stomoxyinae (with some authors tribes) is a monophyletic group of considerably specialized flies of the family Muscidae, comprising about 50 species. As far as their mode of life is known (the knowledge on 6 species is good, on 15—17 species it is superficial), the coprophagia of larvae, oviparity and haematophagia of imagoes on mammals are always present. The only part known about the major half of species primarily the tropical ones, is their existence. Apparently their developmental centre is Africa which has the greatest number of species and genera; from the Palearctic Region 15 species have been reported, in South America the biting flies are represented by one endemic genus, while other species inhabiting the New World are only introduced ones.

Zumt's book is divided into 8 chapters. Chapter I (General morphology and anatomy, pp. 3—12) supplemented with instructive illustrations, summarizes basic data on the morphology and anatomy of all developmental stages. In Chapter II (Classification of stomoxyine genera, pp. 12—14) Zumt has selected 6 characters to which he attributes phylogenetic importance and according to the ratio of their plesiomorphic and apomorphic likeness in each of the ten genera he arranges the final sequence of genera. Following Chapter III, representing a key to genera and Chapter IV, representing a systematic-synonymic catalogue, there is the chapter called Taxonomy and biology of species (pp. 20—137) constituting the main section proper and scientific asset of the book. It contains basic data on morphology, supplemented with original and loan-figures as well as the keys to species, and the data on bionomy and economic importance of all taxa. Of the ten genera of the subfamily (*Rhinomusca* Malloch, *Neivamyia* Pinto & Fonseca, *Bruceomyia* Malloch, *Parastomoxys* Zumt, *Prostomoxys* Zumt, *Stygeromyia* Auston, *Haematobosca* Bezzi, *Haematobia* Lepeletier & Serville, *Haematostoma* Malloch and *Stomoxys* Geoffroy) two are newly erected in this book. Apart of these the author also describes two new species from Africa and mentions many new synonyms on the level of species and genera. In the new concept the genera *Lyperosia* Rond. (1856) and *Siphona*

auct. are the synonyms of the genus *Haematobia* Lepeletier & Serville (1928) and *Haematobia auct.* is a synonym of the genus *Haematobosca* Bezzi (1907), so that the species living in Central Europe are named as follows: *Haematobosca atripalpis* (Bezzi), *Haematobosca stimulans* (Meigen), *Haematobia irritans irritans* (L.), *Haematobia thirouxii titillans* (Bezzi) and *Stomoxys calcitrans* (L.). If this solution withstands all possible criticisms of taxonomic as well as nomenclatural character, the present chaos in generic names of two out of the three most important Central European biting flies will eventually be eliminated.

The economic importance of imagoes (Chapter VI, pp. 137—145) as haemophages is discussed from three aspects: 1. annoyance of host, 2. pathologic reaction of host to fly bites and 3. transmission of pathogenous organisms (diseases caused by worms, protozoa, bacteria and viruses). In the chapter dealing with control of biting flies (VII, pp. 145—150) all known methods, including the use of chemosterilants, are discussed. The last small chapter is devoted to techniques of collecting, culturing, preserving and preparing for study.

The theoretical significance of the book as a revision of the particular group of Diptera is surpassed by its positive quality for the medical and veterinary entomological practice. This book is specially important as a basis for further studies of tropical species, with which even the hosts are still unknown and may be the mammal species becoming extinct and protected in nature preserves. Both specialists and those working in practice will welcome the fact that in this book all data dispersed in an enormous number of publications have been assembled in a brief and concise form which can be considered one of the main assets of the book. Some readers, however, may miss a short general chapter on bionomy of imagoes and immature stages. Minor formal and technical faults such as a less suitable scale chosen or arrangement of some figures, or inaccuracies in reproduced drawings (e.g. venation in Fig. 16) and lacking uniformity of graphic design of texts accompanying the illustrations are negligible and in no way lower the general high standard of the book.

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