
Clarke H. Scholtz


To link to this article: https://doi.org/10.1080/0035919X.2018.1449770

Published online: 05 Apr 2018.
Book Review


The Manual of Afrotropical Diptera, published as two volumes of the South African Biodiversity Institute (SANBI) journal *Suriacea*, is undoubtedly the most thorough treatment of any Afrotropical insect group and will stand for decades as a model for reviews of other groups. The authors (90 of them!), most of whom are the leaders in their field, and, particularly the editors (especially the editor-in-chief Ashley Kirk-Spriggs), have done an immense job of bringing this enormous amount of information on the order to this final stage. The Manual is also a fitting tribute to the leading South African intellectual dipterist, Brian Stuckenberg, to whom the volumes are dedicated, who, besides producing 100-odd papers on Afrotropical Diptera taxonomy, applied the principles of cladistics and speculated about African biogeographic patterns long before these became general approaches to good systematics. Not only the scientific content, but the sheer size of the first two volumes would undoubtedly have impressed him since many years ago after examining a PhD thesis for the University of Pretoria, he commented that his main objection to the thesis was its size since “it creased his trousers while reading it on his lap”!

The full *Manual of Afrotropical Diptera* will eventually consist of four volumes, the first two of which appeared in December 2017. They were published in the South African National Biodiversity Institute’s *Suriacea*, a peer-reviewed journal. Both volumes are printed in hardcover in full colour on high-quality, glossy paper – the technical quality is excellent. Volumes 3 and 4 are expected to appear in 2019.

Volume 1 comprises 425 pages. It includes 11 general introductory chapters: history of Afrotropical dipterology; collection and preservation; morphology and terminology; natural history; agricultural and veterinary, medical, forensic and phytosanitary significance; biogeography; conservation; and the phylogeny of flies. The volume also includes identification keys to adult and larval stages of all Afrotropical fly families. The text is richly illustrated with over 1600 illustrations including 1360 colour and 130 black and white images and 1430 line drawings of flies and their anatomy.

The contents of the first volume are undoubtedly of importance to anyone with an interest in insects since the topics discussed go well beyond the specifics of flies and dipterology, as a glance at the contents will reveal. The introductory chapter covers some of the history of Diptera research, including that of the main fly vectors of diseases caused in humans and their livestock; the chapter on natural history emphasises that Diptera are, arguably, the most diverse insect order, while in other chapters, there is an emphasis on the fact that Diptera is the most important order of medical and veterinary pests, and of species for medico-legal forensic investigation. It also includes many of the most destructive agricultural pests. The recent issue around *Bactrocera dorsalis* invadens (Schutze et al., 2015) illustrated both the immense commercial importance of pest fruit flies (leptinidae), and the value of detailed, comprehensive systematic study of the species in question. The chapter in the Manual on the phytosanitary significance of flies is as relevant to other insect groups as it is to flies, likewise the chapters on biogeography and conservation. The keys to adults and larvae of each of the 108 families in the region will be useful to anyone interested in trying to identify specimens.

This first volume should find a place on the bookshelf of anyone interested in insects and at the very reasonable price of ZAR350 (about US$24) it is certainly affordable, even for students.

Volume 2 is more than double the size of Volume 1, at 936 pages. It includes chapters on 43 of the 108 families in the region and covers the nematocerous Diptera and lower Brachycera (sometimes referred to as lower Diptera). Each chapter includes a diagnosis of the family, sections dealing with biology and immature stages, classification and identification, an identification key to genera and a synopsis of the fauna, arranged genus by genus alphabetically. The text is richly illustrated with over 2900 illustrations including 1360 colour and 130 black and white images and 1430 line drawings of flies and their anatomy.

The second volume is more technical than the first but is, nevertheless, a very thorough treatment of the lower Diptera families and should, consequently, be of relevance to anyone with an interest in flies in general. Besides the detailed taxonomic treatment of each family, the coverage of the natural history of the groups is excellent and is the first time ever that these aspects are consolidated into a readily available and accessible medium.

Most of the colour photographs of flies in situ in both volumes were taken by Stephen Marshall of Guelph, Canada, and they are exquisite, as are the line drawings, mostly done by the chapter authors themselves.

Obviously, trying to effectively review such sizeable and exhaustive volumes of this detailed research is, in itself, an immense undertaking, to which I am not sure I can do justice. However, I have read all the introductory chapters in Volume 1, and, randomly, several of the taxonomic chapters in Volume 2. I cannot find fault with any of it. Each chapter appears to be a rigorous treatment of the subject with the result that the books appear scientifically thorough and are undoubtedly aesthetically extremely attractive.

Consequently, I am certain that these volumes will serve for decades as monuments to the richness and interest of Afrotropical dipterology and to the far-sightedness, endurance, and tenacity of the editors for which all scientists should be very grateful. The books are magnificent – beautifully illustrated, well written and comprehensive, and technically perfect, combinations that will undoubtedly place the volumes on the pedestal of great African entomology. I strongly recommend that anyone with an interest in any aspect of entomology or entomological literature purchase copies of these books – they
should take pride of place on any specialist’s or enthusiast’s bookshelf.

Reference