

An idea was hatched in the 1970s amongst the Dipterists at the Canadian National Collection: Produce comprehensive guides to Diptera, family by family, including the most up to date morphological terminology, phylogenetic hypotheses, and identification keys. High quality illustrations must be included. This idea has been carried forward in many forms by many authors and editors. The Manual of Nearctic Diptera was published in three volumes (1981, 1987, 1989). Contributions to a Manual of Palaearctic Diptera was published in four volumes (1997, 1998, 2000 [Volumes 1 & 4]). Manual of Central American Diptera was published in two volumes (2009, 2010). The latest iteration tackles the Afrotropical region with two volumes available now and two more to follow in the next 2 years.

The most recent version of this global, dipterological effort has produced the most comprehensive, accessible, and informative volumes to date. The first volume of the Manual of Afrotropical Diptera (MAD) provides all of the foundational, background chapters. Over the course of 11 chapters, the history of African Dipterology, Diptera collection techniques, current standards of morphological terminology, fly natural history and ecology, and medical, veterinary, agricultural, forensic, and phytosanitary impacts of flies are laid out by world experts. Of particular value is a historical and biogeographical examination of the African continent. Modern translations of various colonial names are essential to those trying to make sense of historical literature and labels. A listing of current insect collections and biodiversity efforts across the region gives the book a forward-looking perspective. Here are opportunities to work with local governments, agencies, and institutions to continue efforts to track and investigate Afrotropical Diptera.

The final two chapters of Volume 1 set the stage for what constitutes the rest of the series, including all of Volume 2. A key to adult Diptera families is provided in more photographic detail than has ever been done before. Spanning nearly 100 pages, with colour photographs at almost every couplet, the dichotomous key makes it very easy for anyone to put a family name on any fly they should encounter in the Afrotropical region. This modern take on identification tools is obviously influenced by online, picture-based keys. The larval key that concludes Volume 1 takes a more conventional approach to the dichotomous key, but is still richly illustrated.

The second volume of the MAD is presented in a format that will comprise the final three volumes of the Manual. Starting with Tipulidae/Limoniidae and continuing through
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Dolichopodidae, 43 families of “Nematocera” and “lower Brachycera” are treated. The life history, ecology, morphology, classification, and proposed phylogeny of each family are provided in detail. Expert authors have been sought for each family, resulting in a total of 46 contributing authors for Volume 2 alone. Each family chapter contains at least a dichotomous key to genus for adults, while some also include a key for immature stages. An addition to the standard “Manual” format that was added in the Manual of Central American Diptera, and continued in MAD, is a summary of the diversity and available literature for each genus included in the key. In almost every chapter, it is noted that current numbers of described species, and often described genera, are far below what will actually be found with future research. All keys are aided by abundant line drawings and colour photographs. This use of illustration is greatly appreciated and was made possible by new photography as well as publishing agreements with previous Manuals. Seeing the beautiful Ralph Idema line drawings from the Nearctic Manual still being used in keys today is a testament to their original quality.

The first two volumes of the Manual of Afrotropical Diptera are a testament to current, hard-working Dipterists, authors, illustrators, and editors. It is also a powerful testament to the enduring quality of that original idea of the CNC Diptera Unit. Forty years after proposing to generate a single series of books that will make it possible to identify ALL Diptera in a region, the movement has spread to tropical Africa. Using the two volumes here, a genus identification, and quite possibly a species identification (depending on the state of current revisionary classification for said group), is attainable for ALL of the currently described species of Afrotropical Diptera (from Tipulidae to Dolichopodidae). This is an amazing feat yet to be equaled in any other group of insects. Further to its present value, the publication of this series will also spark new research in Afrotropical Dipetology. With existing keys in hand, future workers can begin to describe the as yet undescribed species of the region. They can investigate the agricultural, veterinary, and human health impacts of African flies. They can explore evolutionary histories and ecological relationships using the vast diversity in the region. With a very reasonable sticker price and a beautiful layout, owning a hard copy of these volumes is required for all interested entomologists. The level of detail in the background information and the user-friendly keys make the pool of who should be interested in a book on African flies wider than would be predicted.

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