

BOOK REVIEWS

ANNOTATED BIBLIOGRAPHY OF *Toxorhynchites* (DIPTERA: CULICIDAE), by Wallace A. Steffan, Neal L. Evenhuis and Deborah L. Manning. 1980. Journal of Medical Entomology, Supplement No. 3. 140 pp. \$11.00 for subscribers to the journal and \$13.00 for others.

Renewed interest in *Toxorhynchites* in the areas of biological control, arbovirus detection, morphology and basic biological studies has prompted Dr. Wallace A. Steffan and coworkers of the Bishop Museum in Honolulu to compile a very complete and annotated bibliography of references to this predaceous subfamily. The literature survey for the bibliography was concluded on March 31, 1979 and includes every known reference collected from ca. 375 different serial publications. The value of this comprehensive bibliography is enhanced by extensive cross-indexing to taxonomic categories, key words and distribution.

In the bibliography itself, each of the 1,295 references are arranged alphabetically by first author. Each entry provides the usual information on authorship, date of publication and complete title, followed by the serial citation with volume and issue number and pagination. Each reference is provided with an identifying number for use in computerizing the bibliography, and the systematic, subject (key word), and geographic indices which follow the bibliography. A decimal numbering system has been employed to allow for subsequent expansion.

The annotations following each complete citation are divided into the three groups mentioned above: taxa, key words and distribution. The taxon category includes all taxonomic group names in Toxorhynchinae in descending order from subfamily to subspecies with all scientific names being listed regardless of their validity. The key word category includes the following subjects: behavior, bibliography, biocontrol, bionomics, ecology, evolution, fossil record, general, genetics, key, laboratory studies, life cycle, morphology, physiology, systematics and virus studies. The third category reports the distribution of the species mentioned in the reference. Reference to one of these indices allows one to quickly sort through the entire bibliography and extract the desired information with respect to taxonomy, subject area and distribution.

With the authors' promise to publish regular updates, the bibliography will relieve many individuals of tedious and incomplete literature searching. *Toxorhynchites* workers will welcome this contribution and find it invaluable. Dana A. Focks, Insects Affecting Man and Animals Research Laboratory, ARS, USDA, Gainesville, Florida.

TAXONOMISTS' GLOSSARY OF MOSQUITO ANATOMY, by R. E. Harbach and K. L. Knight. 1980. Plexus Publishing Inc., Marlton, N. J. 415 pp. \$24.95.

At last, a much needed, long-overdue and exhaustive treatise on the surface anatomy of mosquitoes! All of us who have suffered from synonyms over the years will appreciate this attempt to standardize the multitude of anatomical terms used in the description of mosquitoes. The authors have given us an "instant classic." Every mosquito researcher who requires a thorough understanding of mosquito anatomy will welcome this tremendous reference work. This volume, a scholarly milestone in the field of culicidology, may be most appreciated by mosquito taxonomists and functional anatomists but students, teachers and researchers in other areas of mosquito study will also find it an invaluable resource.

The terms used to describe the sclerotized anatomy of mosquitoes are organized into 5 sections: i.e., adult, egg, larvae, pupa and vestiture. A definition for each of the 1,139 recommended or accepted terms is followed by a list of synonyms. The index permits the reader to locate any term used. As far as I could determine, every term used is clearly figured somewhere on at least one of the 365 line drawings and scanning electron micrographs. The illustrations follow the text in each section.

By providing explicit definitions of structures which are phylogenetically and ontogenetically comparative, the authors will help to stabilize the anatomical terminology used in the Culicidae and related families of Diptera.

Some mosquito taxonomists and comparative anatomists may find fault with some of the terms used and steadfastly persist in using their own terms but the glossary should reduce much of the confusion and frustration of those entering the field of mosquito taxonomy. I would conservatively estimate that the training of future mosquito taxonomists could be reduced by 6 to 12 months by reference to this