

all the important work current at the time of writing. These chapters particularly will be an extremely valuable reference source to all workers in the field of radiation biology.

This volume is a definitive addition to the libraries of radiobiologists, radiologists, radiological physicists, and a large group of other scientists whose work brings them in contact with the effects of ionizing radiations on living tissues.

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The Horse-Flies (Diptera: Tabanidae) of the Ethiopian Region. vol. II: *Tabanus and Related Genera*. H. Oldroyd. British Museum (Natural History), London, 1954. x + 341 pp. Illus. + plates. £2 5s.

Here is a handsomely printed and abundantly illustrated companion volume to the first of the series on another tribe, the Haematopotini, of the same region. The third, to appear later on the entire subfamily Pangoniinae, will complete the series. This outstanding monographic work by a world authority on an important blood-sucking group of insects constitutes a monumental contribution to an understanding of insects of medical and veterinary importance in Africa. It will be the chief reference in its field for many years. The British Museum (Natural History) is to be congratulated for sponsoring this more than ample treatment at a time when printing costs are up and publication of large systematic, faunal studies, even of an important group like this, are more often discouraged than stimulated.

The author brings to bear a wealth of world experience with this family of flies, and integrates the latest refinements in classification with those on other continents. Not since the very inadequate and incomplete work of Surcouf and Ricardo in 1909 has there been available any comprehensive treatment of the complex group of flies related to the genus *Tabanus sens. lat.* for the region. The keys in particular will be welcomed and they appear to be highly practical, supplemented by 238 critical figures of which the author himself has drawn many. There are 31 maps showing distribution of species groups for a total of 147 species, 17 new. For the great majority of these, Oldroyd has studied the types and redescribed fresh specimens, including the males of about half. This was facilitated by the wealth of material uniquely accessible to him in the British Museum and in other collections. It is remarkable that only 8 species of *Tabanus* are deleted from the Ethiopian list as wrongly or doubtfully located, or unrecognizable.

The author discusses previous efforts and difficulties in attempting to break up the "great, unorganized mass of species" in the "all-embracing *Tabanus*" and accomplishes some restriction himself, but further admits that "it is certain that very many of the species included [in his *Tabanus sens. str.*] are not strictly

congeneric with *Tabanus bovinus*, and therefore there is little one can say about the group in a positive sense." Three new genera are proposed and four, based on new conceptions and in part on recognition of primitive elements through the bare basicosts on the wings, are raised from previous subgeneric status.

Though the basic purpose of the book is a systematic review, there are introductory discussions of such subjects as morphology, collecting and preserving, early stages and habits, transmission of disease, and phylogeny which make interesting and informative reading for many not particularly interested in taxonomy *per se*. One stated aim in this regard is most admirable: "I have brought together everything I could find in the hope of stimulating more study of the behavior of the living flies, and more collecting and breeding of the larvae and pupae." This volume should certainly stimulate progress in that direction, particularly since a new world of previously supposed rare or unknown tabanids has been opened up incidental to the study of mosquito denizens high up in the jungle canopy.

The considerable upsurge in world-wide interest in the Tabanidae is reflected in the author's references including unpublished studies of Ovazza and Taufflieb on possible discovery of new characters of internal female genitalia. A marked advance in world classification of suprageneric categories is anticipated in the studies of Mackerras of Australia (also in press) on genitalia of both sexes which should integrate nicely with the third Ethiopian volume still to come.

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Ferromagnetic Domains. K. H. Stewart. Cambridge Univ Press, New York, 1954. viii + 176 pp. Illus. + plates. \$4.75.

A review or monograph inevitably reflects the principal interests of its author. The recent Cambridge monograph, *Ferromagnetic Domains*, is no exception. The author has given an admirable treatment of the phases of the subject with which he has had most intimate association in his research activities. A consequence of this is that the value of this work is to be found not so much in the early chapters devoted to the nature, background, and origin of the domain concept in ferromagnetism and their properties but rather in the treatment of the outward manifestations of their existence in influencing macroscopically measurable material properties. Thus the chapters on time effects in ferromagnetic materials and on hindrances to domain wall motion are a welcome addition to the literature in that they provide a coherent though succinct survey of developments in this direction. By contrast, the early chapters on magnetostriction and domain arrangements leave much to be desired in simplicity and coherence of presentation and as a potential source for the liberal education of the novice in the fundamentals of domain theory.