

and arguments, often repeated and expanded in various sections of the book, is not too easy even with the help of the index; this may be due to the ten-year time-lag between the initiation of this study and its final publication. However, few will disagree with the main points of the author's thesis, and his plea for some form of clearing-house system is timely.

Psychologists and sociologists will look forward to the second volume, and now that Mr. Furneaux has dealt with the background of selection he will be free to deal with the ways in which psychological tests and procedures can be of use in university selection.

W. H. KING

THE PHYSIOLOGY, PHARMACOLOGY AND PATHOLOGY OF MUSCLE

The Structure and Function of Muscle

Edited by G. H. Bourne. Vol. 2: Biochemistry and Physiology. Pp. xiv + 593. 118s. Vol. 3: Pharmacology and Disease. Pp. xiv + 489. 107s. 6d. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1960.)

THIS treatise on muscle is completed by the present volumes. In Volume 2, the first two chapters, on the chemistry of myofibrillar protein and on the biochemistry of muscular action, set a high standard. Chapter 3 gives an account of the biochemistry of muscle mitochondria, and is followed, in Chapter 4, by an essay on endocrinology with reference to muscle. Chapter 5, entitled, "The Neuromuscular Junction: Role of the Acetylcholine System", is a discursive review of some aspects of conduction, neuromuscular and synaptic transmission. Chapters 6 and 7 give a concise account of the biophysics of muscle, and are followed, in Chapter 8, by an excellent survey of the comparative physiology of the activation of muscle. The next two chapters are essays on human muscular physiology, with emphasis on factors limiting performance and on fatigue. Chapter 11 is a full and balanced review of the central nervous control of skeletal muscle, which covers the substantial advances made in the past two decades. This volume is concluded by a stimulating chapter on certain aspects of the physiology of cardiac muscle.

It is regrettable that much space has been given, in Volume 2, to marginal topics, such as endocrinology and the biochemistry of sarcosomes, apparently at the expense of an adequate treatment of the physiology of smooth and cardiac muscle. A disappointing feature of the book is the section on neuromuscular transmission, which unduly emphasizes the personal views of the author. Fortunately, these faults are offset by the uniformly high standard of most contributions to this volume, which can be recommended to the advanced student and teacher as a useful account of many of the recent advances in the biochemistry and physiology of muscle.

In Volume 3 two chapters are devoted to pharmacology: Chapter 1 is a review of the actions of drugs on smooth and skeletal muscle; in Chapter 2 some aspects of the effects of drugs on the myocardium are discussed. Virus infections involving muscle are described in Chapter 3, which is followed by a chapter on the parasitic infections of muscle, with emphasis on the widespread prevalence of sarco-

cystic infestation. An illustrated account of the degeneration and regeneration of skeletal muscle in Chapter 5 is succeeded by chapters on the effects of nutritional deficiencies on muscle, and on the histological changes in muscle due to ageing. Chapter 8 is an authoritative review of recent advances in the study of post-mortem changes in muscle, with especial reference to rigor mortis. The histochemistry of muscle is dealt with in Chapter 9. The pathology of the intrinsic diseases of muscle is described in Chapter 10, which is followed by a chapter on the clinical features of these diseases. Chapter 12 is an interesting discussion of the genetic aspects of muscular disease. A brief but stimulating essay on some fundamental problems of muscle biochemistry concludes the work.

The article on the pharmacology of skeletal and smooth muscle is outstanding, in Volume 3, in its conciseness, and will be of great value to the general reader. It seems remarkable that, in the treatment of pathology, parasitic and virus infections are considered in some detail, but no mention is made of Clostridial infections. The quality of the histological illustrations is not uniformly satisfactory: many are too small and suffer from poor definition. Nevertheless, this volume may particularly interest clinicians, and should focus attention on a field which has hitherto been rather neglected. D. H. SPROULL

ECTO- AND ENDO-PARASITES OF SOUTH-EAST ASIA

Malaysian Parasites

XXXV-XLIX. Edited by W. W. Macdonald. (Studies from the Institute for Medical Research, Federation of Malaya, No. 29.) Pp. vii + 251. (Kuala Lumpur: Institute for Medical Research, 1960.) 9 Malayan dollars; 21s.; 3 U.S. dollars.

THIS is the third volume of a series of collected papers on the ecto- and endo-parasites (including biting insects and arachnids) occurring in south-east Asia. It contains two long papers, both by C. B. Philip and W. W. Macdonald, on Tabanidae and Culicinae respectively, a review of the host distribution of Malayan ticks by J. R. Audy and others, and several shorter papers on mites, together with one on the rearing of ixodid ticks and another on nematode parasites of domestic rats.

Like its predecessors it is well bound, clearly and attractively printed and illustrated, and remarkable value for money. Most of the papers are for the expert, but Macdonald's paper on the ecology of mosquitoes in lowland dipterocarp forest should interest the general reader. The same author's paper on *Armigeres* sub-genus *Leicesteria* also contains much of ecological interest, with particular reference to the fauna of bamboo internodes.

It is sad to think that most of those who worked in the Institute during the publication of this series have now dispersed. Their achievements bear witness to the unique potentialities of a team of this kind. The present staff can be trusted to carry on the tradition within the limits of their resources. For the rest it is to be hoped that visiting experts will use the Institute as a centre for exploring the marvellously rich fauna of south-east Asia and the many intricate and still little understood problems of human ecology which the area presents.

P. F. MATTINGLY