

Prosimians and evolution

Prosimian Biology. (Proceedings of a Meeting of the Research Seminar in Archaeology and Related Subjects.) Edited by R. D. Martin, G. A. Doyle and A. C. Walker. Pp. xxi+983. (Duckworth: London, November 1974.) £30.00.

"THIS collection of papers" the late W. C. Osman Hill wrote in the foreword, "can be seen to cover an extremely broad spectrum". He was far from wrong. Fifty four chapters by authors from many countries and several disciplines describe the behaviour, ecology, physiology, anatomy, neurophysiology, cytology, biochemistry and evolution of prosimians.

The book represents more than an addition to current knowledge of another group of little known mammals. As Doyle and Martin point out in their introductory chapter, the morphology of contemporary prosimians is broadly similar to that of the array of Eocene primates from which the Anthropoidea developed. Living species may thus provide an approximate blueprint of the behaviour and ecology of the common ancestors of prosimians and anthropoids. Moreover, the many examples of convergence between prosimian and anthropoid species occupying similar niches strengthen arguments relating behavioural and morphological differences to variation in ecology. For both reasons, the study of prosimians may help us to understand the evolution of the higher primates.

The book's most important contribution lies in the first section. This reports the results of field studies covering 15 different species. Until recently, the behaviour and ecology of prosimians was poorly documented, partly because most species are nocturnal and almost all live in habitats where observation is difficult. This group of papers represents a major advance in the field and bears witness as much of the authors' endurance as to their perspicacity. The extensive sections on anatomy, biochemistry and evolution provide many insights into the functional significance of particular structures, ranging from teeth to toenails, and into the phylogenetic status of a wide variety of species. A general weakness, considering the stated justification for studying prosimians, is the authors' reluctance to discuss the relevance of their findings to the evolution of the higher primates and man.

The book is well produced and carefully edited. It contains fewer make-weight chapters than most published collections of conference papers. And



Lesser bushbabies (*Galago senegalensis moholi*)

it is likely to represent a milestone in its field for many years. Nevertheless, it should make contributors, editors and publishers think carefully about the wisdom of producing similar volumes. At £30.00 it is beyond the reach of private buyers. All except the most affluent libraries are likely to look askance at highly specialised symposium

proceedings which cost as much as a year's subscription to the average journal. If the size and cost of symposia proceedings continue to escalate at this rate, it is inevitable that they will only be available in the largest libraries. That will benefit neither readers nor authors.

T. H. Clutton-Brock

Most theories according to others

Transport Phenomena in Aqueous Solutions. By Tibor Erdey-Gruz. Pp. 512. (Adam Hilger: London; Akademiai Kiado: Budapest, December 1974.) £12.00.

THE transport properties covered in this book are the traditional ones of shear viscosity, concentration diffusion and electrical conductivity. There is only passing mention of bulk viscosity, thermal diffusion, dielectric relaxation, and so on. The three properties covered form the subjects of chapters 2, 3 and 4. The first chapter discusses the molecular structure of liquid water and the fifth, which should perhaps more logically have been the second, covers the equilibrium properties of aqueous solutions.

The author has an encyclopaedic knowledge of what has been said and done, but shows little discrimination. Every experiment and, what is worse, every theory is referred to, but he rarely tries to judge between them. Thus, sections 1.3.3.2 to 1.3.3.9 describe briefly eight different classes of theories of the structure of water and are followed, as if in despair, by 1.3.3.10 which is called simply "Further Theories". His classification is impeccable but he does not tell the reader which of these mutually inconsistent theories he

believes to be correct; nor does he marshal well the evidence on which the reader could judge for himself. The same is true of the treatment in later chapters on theories of transport. Moreover, even his references become perfunctory when he touches on modern theories which require for their understanding a knowledge of non-equilibrium statistical mechanics.

Perhaps he sees it as the duty of the author of a monograph simply to summarise the views of others (the commonest phrase in the book is "according to X"), and not to inflict his own views on his readers, but it makes for a dull book. The only point at which it comes alive is in the section (p. 351-390) on the effect of non-electrolytes on electrolytic conductivity. There, the author has himself contributed experimentally to the subject and his discussion is much more cogent than elsewhere.

The book can be recommended, however, to those who want access to the voluminous experimental literature, and to the mechanically more simple theories of the last 40 years. The references and indexes are, on the whole, accurate, comprehensive and organised in a way which makes it easy to recover the information in the literature.

J. S. Rowlinson