## NATURE, VOL. 215, SEPTEMBER 16, 1967

The introductory chapter summarizes the characters of mammals, the zoogeographical regions—with a table showing the distribution and diversity of recent mammals —and explains the methods of presentation of the information in the main body of the work. The second chapter gives a synopsis of the fossil history of the families of recent mammals, and packs much information into a small space. Simpson's classification is followed for the greater part, but the cetaceans are treated as two orders, and the pinnepedes are ordinally separated from the fissipede carnivores. The writing throughout is telegraphic in style for the sake of brevity.

The synopsis of each family is arranged under a set of standard headings: diagnosis, general characters, habits, habitat, recent distribution, a list of recent genera with the number of species, geological range, major fossil groups, and remarks. The orders are treated similarly *mutatis mutandis*, and a distribution map is provided for nearly every family. The information given is well documented, and there is an extensive bibliography and a full index. The similarity of organization through the volume makes it easy to find and compare information in the accounts of the different families. In a compilation from so many sources, by so many contributors, there are bound to be some mistakes, but a set of test questions failed to reveal any errors.

The book is intended to provide a ready source of information about the living mammals not only for mammalogists but also for other people interested in mammals who work in other disciplines on which mammals impinge such as botany, entomology, ecology or geography. In addition to giving an enormous amount of information in small compass, it is an excellent source book for more detailed studies. It is one of the most useful books about mammals that has appeared since Flower and Lydekker's *Introduction to the Study of Mammals* was published in 1891, and all those to whom it is addressed will find it indispensable and will be accordingly grateful to the team of authors for their enterprise and skill.

L. HARRISON MATTHEWS

## SMALL WORLD

An Illustrated Catalogue of the Rothschild Collection of Fleas (Siphonaptera) in the British Museum (Natural History)

By G. H. E. Hopkins and Miriam Rothschild. Vol. 4: Hystrichopsyllidae (Ctenophthalminae, Dinopsyllinae, Doratopsyllinae, and Listropsyllinae). Pp. viii+549+ 12 plates. (London: British Museum (Natural History), 1966.) n.p.

THE publication of a volume of the Illustrated Catalogue of the Rothschild Collection of Fleas is a real event for anyone interested in siphonapterology. This so-called catalogue is actually nothing less than a handbook for the identification of all the known species and sub-species of fleas. It not only catalogues the numerous specimens present in the Rothschild and British Museum (Natural History) collections of fleas but also gives keys for identification and short descriptions of all taxa.

The work is of great interest because of its contents, and the way in which the great task of compiling it has been carried out deserves much admiration. The keys and descriptions are lucid; the latter are not long-winded; they have been reduced to essential characters. The numerous excellent figures (926 in this volume) of structures of taxonomic importance are supplemented by twelve plates with photographs of whole fleas or of particular taxonomic features. It is impossible to appreciate here all the excellent details of this work which must rank among the best publications in the field of systematic entomology.

The present volume contains the greater part of the large family Hystrichopsyllidae, including the large genus

*Ctenophthalmus kolenati.* The classification of this genus follows modern ideas, especially those of Smit, and the genus is subdivided into thirteen sub-genera. A "list of taxa not in volumes I to III inclusive", in the appendix, gives references to the taxa belonging to families treated in previous volumes of the catalogue and which have been described since.

The two authors and the trustees of the British Museum (Natural History) are to be congratulated for this admirable book and to be thanked for the painstaking work involved in its completion. I trust that it will be widely used and distributed. It should not be missing from any entomological library, because it should serve, apart from its special subject matter, as a model for papers on taxonomy. E. HAESELBARTH

## BACKWARDNESS IN READING

## The Disabled Reader

Education of the Dyslexic Child. Edited by John Money. Pp. xiii+421. (Baltimore : The Johns Hopkins Press; London : Oxford University Press, 1966.) 68s. net.

THIS is a collection of articles—some new, others reprinted —concerned with various aspects of the problem of selective backwardness in reading and spelling. It is "inter-disciplinary" in the modern fashionable sense, with the authors drawn from child psychiatry, paediatrics, experimental psychology, linguistics and remedial education. (Oddly, there is only one neurologist, and he is half psychologist.) While predominantly American in tone, British workers are by no means unrepresented.

The book is divided into two main parts, the first concerned with reading and the analysis of reading backwardness, and the second with teaching methods and the organization of classes for the backward reader. Then come five clinical case reports and an account of some special disabilities in perception and orientation encountered in backward readers. There is a short concluding section, a glossary and a bibliography.

Although the nature and origin of severe backwardness in reading are still imperfectly understood, it now seems clear that at least two major varieties of the disability exist. The first appears in the context of overall language retardation which, in some cases at least, may have a genetical basis. The second appears along with more widespread defects in visual orientation and spatial judgment, and is not infrequently linked with early, minimal brain damage.

The nature of the disability, too, appears to differ somewhat in these two main groups, being largely a difficulty in linking visual with phonetic elements in the first, and of visual orientation and recognition in the second. It should not be impossible to devise remedial methods specifically adapted to these particular forms of disability.

As regards the remedial methods described in this book, there is no doubt that they are largely *ad hoc*, or at all events based on a distinctly insecure rationale. It would be an immense step forward if this book should lead psychologists, doctors and remedial teachers to design genuinely inter-disciplinary research on methods of remedial treatment and to test their efficacy by controlled experiment.

Dr John Money has done much in recent years to focus interest on backwardness in reading and to stress the need for more adequate scientific study of its causes and treatment. In spite of the scrappiness inseparable from compilations of this kind, his book should be warmly welcomed by all concerned with the very real problems of the dyslexic child and those who teach him.

O. L. ZANGWILL