

IS THERE DANGER AHEAD?



A young hedgehog caught by Jane Burton's camera while out for a stroll has sensed danger and has raised its spines as a preliminary to rolling up. One of several delightful photographs in a new "Survival Book", *The Hedgehog*, by Maurice Burton (Deutsch: London, October 1969, 30s).

PRIMATES FOR THE LAYMAN

The Life of Primates

By Adolph H. Schultz. (The Weidenfeld and Nicolson Natural History.) Pp. xi+281+39 plates. (Weidenfeld and Nicolson: London, August 1969.) 63s.

A FIRST book by a great scientist is always eagerly awaited, but those who expect from this book the definitive results of a lifetime study may be disappointed. I suspect that the author is not entirely to blame, because the book that he had undertaken is undeniably part of a natural history series aimed at the intelligent but general public.

Schultz's research is largely an exhaustive search for facts; his approach is comparative, morphological and non-experimental. The result of his studies is a prodigious amount of data concerning primate skeletal features and dimensions, body form, external characters, relative weights, proportions and growth changes. The value of this painstaking anatomical work is obviously immense because it provides a reliable baseline for further studies in a wide range of fields of primate inquiry, and has frequently defined the range of variability of individual characters within the order. Accurate knowledge of this variability has often knocked away the supports of theories that have been based on inadequate observations.

After a brief historical introduction and survey of primate characters, the reader is introduced to the variety of primate specializations in terms of selected anatomical systems. These are limited to the locomotor system, the brain and special senses, the integuments, the oral cavity and the reproductive apparatus. No reference is made to the digestive system, the cardiovascular system, the endocrines, the kidneys, blood groups, serum proteins or primate genetics. While it is accepted that no man, not even Schultz, could be expected to be expert in all these fields, it would not seem unreasonable to expect some mention of these topics in a book with this title.

Perhaps the most interesting sections are those devoted to growth, development, sexual dimorphism and behaviour. Here the author draws not only on his own research but also on his wide knowledge of the literature.

The book has been illustrated throughout by the author whose drawings and diagrams are superb for their clarity, accuracy and even, on occasion, feeling. It is a shame that

the quality of reproduction of the black-and-white drawings is uniformly poor; but even this cannot detract from Schultz's artistry. The black-and-white plates are moderately well chosen, but I cannot believe that some of the colour plates faithfully represent the subjects portrayed, for example, the crude reproductions of some primate paintings by da Cruz Lima, Eladio. One glaring typographical error lightened my task, the running title of chapter 14, "Reproduction, morbidity and morality" [*sic*].

It is inevitable that comparisons will be made between this book and the two classic volumes, of similar title, by one of the associate editors, J. Z. Young. By this yardstick *The Life of Primates* falls very short indeed.

M. H. DAY

TAMED MONKEY

The Squirrel Monkey

By Leonard A. Rosenblum and Robert W. Cooper. Pp. xii+451. (Academic Press: London and New York, January 1969.) 163s 4d.

UNTIL little more than a decade ago, primate types used in medical and other research were generally restricted to a small number of species among which the rhesus monkey (*Macaca mulatta*) was pre-eminent with the chimpanzee (*Pan* sp.) playing a significant part in behavioural and other studies. An upsurge of interest, both in basic primate biology and in enquiries as to whether or not primate species additional to those used in the past provide the most suitable material for applied research, occurred some ten years ago, concurrently with the establishment, in the United States, of a group of regional primate centres. One of the findings that has emerged from the large amount of work subsequently carried out in these and other institutions has been that the South American squirrel monkey (*Saimiri sciureus*) is eminently suitable as a laboratory animal.

The animal, found in the wild in "areas of every Central and South American country within the latitude of 10° N and 15° S", has previously been best known as featuring in a series of behavioural experiments carried out almost forty years ago by H. Klüver and described in his well known monograph *Behaviour Mechanisms in Monkeys*.

The laboratory colony of squirrel monkeys established by Klüver for his work remained in being, but it was not until 1949 that a second experimental colony was established and only in 1958 that the animal was actively used in "organized biomedical research". Since then, information about its biology has increased rapidly and this volume was designed to meet a need "to pool existing knowledge in concise form". Its concept dates from a conference on reproduction in the squirrel monkey held in spring 1965. The result of its compilation is a work of some 450 pages and containing a total of fourteen major contributions. These do not pretend to cover all aspects of the animal's characteristics.

An introductory chapter deals with the taxonomy of the squirrel monkey, and describes the highly organized sources of supply and channels for importing this species into the United States. This is followed by an account of the parasitology of *Saimiri*—a field that has been the subject of extensive, although still incomplete, study.

The two following chapters deal with observations of the behaviour (social and otherwise) of these monkeys in a natural environment, while later chapters deal with early behavioural development in the infant squirrel monkey, social communication in the genus, its learning and sensory capacities, together with an account of cerebral mechanisms in relation to behaviour. This section dealing with behaviour and related topics accounts for almost half the total bulk of the volume. Other and smaller sections deal with reproductive physiology, embryology together with