Two final chapters by J. P. Scott and C. R. Carpenter review the field on a wider basis. Both are more concerned with easy generalisations about primate aggression—males are more aggressive than females, aggression occurs in competitive situations and is influenced by crowding or changes in group membership—than with important problems. That is a pity, because several theoretical problems occur throughout the book and require detailed consideration. Just what is aggressive behaviour? (It is defined in at least 10 different ways in as many chapters). Is predatory behaviour controlled by the same mechanisms or not? Should aggression include threats and displays or just physical attacks? What is the adaptive significance of differences in aggressiveness? If aggression is the means by which individuals maintain access to limited resources, why do they not kill subordinates and have done with it? When discussing the functions of aggressive behaviour, too many of the contributors treat aggression as a syndrome, suggesting advantages which invoke group selection. In contrast, there is too little discussion of the adaptive significance of differences in aggressiveness between individuals or between contexts.

Finally, how much do primate studies really tell us about humans? Clearly, research on the control and development of aggressive behaviour in primates suggests possibilities which can be investigated in man afterwards, but it is not obvious that broad, comparative studies help much. Perhaps the proper way to study mankind is not through monkeys after all since man's environment differs so widely from those of other primates. Despite these limitations, zoologists and comparative psychologists should be grateful to Holloway and his contributors for providing reviews which cover a wide and disparate literature.

T. H. Clutton-Brock

Primates: Comparative Anatomy and Taxonomy. Vol. 7: *Cynopithecinae*. By W. C. Osman Hill. Pp. xxxi+934+48 plates. (Edinburgh University Press: Edinburgh, April 1974.) £25.00.

THESE days, when half the new publications in science are either proceedings of symposia or multi-authored surveys of the latest scientific wonder, a scholarly monograph written by a single author is as welcome as the sound of the cuckoo in April. Volume 7 of Dr Osman Hill's encyclopaedic series on the primates is a worthy companion to the previous seven volumes (including Volume 8 which was published out of sequence).

It is not easy to criticise a work of such length and distinction without giving the impression of cavilling, but where matters of nomenclature and taxonomy are at stake even apparently trivial issues require comment. Two main criticisms spring to mind; there is a tendency to include everything rather than to select, and to cling to the past rather than to come up to date.

To illustrate the first point: two range maps of the same two species are included, showing radically different distributions (Maps 11 and 12, *Macaca arctoides* and *M. thibetana*). To say the least, that undermines the confidence of the reader.

The second point—clinging to the past—is instanced by the use of the name *Macaca irus* for the crab-eating macaque, ostensibly for the sake of uniformity with previous volumes. Since the publication of the *International Code of Zoological Nomenclature* in 1961, the zoological nomenclature game (once a highly esoteric pursuit) has become one which all can play. Anybody with access to a museum library can see for themselves that under Article 11g(ii) the name *irus* was not properly proposed by Cuvier in 1818, and will therefore reject it. The retention of an unavailable name merely tends to boost its status and prolong its use, thus perpetuating nomenclatorial confusion.

Turning from nomenclature to taxonomy, the same backward looking trend can be seen in Dr Osman Hill's handling of the *Macaca*/*Cynopithecus* controversy. In 1969 Fooden showed convincingly that the seven species (or subspecies) of Celebes macaques are monophyletic, probably an offshoot of Bornean *Macaca nemestrina* stock by way of the Makassar Strait. The species at the centre of dispersal, *M. tonkeana*, seem to be the least differentiated, and the terminal species in the north (*M. nigra*) and in the south-east (*M. brunnescens*) are, as might be expected, the most highly differentiated, and are linked to *M. tonkeana* by intermediate populations. Mayr, whose ideas on systematics and the origin of species have been widely adopted, would undoubtedly interpret these forms as congeneric. To quote from his book *Systematics and the Origin of Species from the Viewpoint of a Zoologist* (Dover: New York), "That they are nothing but subspecies, or at best allopatric species, is particularly evident in cases in which the widely diverging species are the extreme ends of a long chain of intermediate subspecies."

Nevertheless, Hill still feels it necessary to give taxonomic expression to the extreme differentiation of the northern Celebes 'Black Apes' (*Cynopithecus*) from the Moor Macaques (*Macaca maurus*), following Laurie and Hill (*List of land mammals of New Guinea, Celebes and adjacent islands, 1758–1952*. Trustees of the British Museum, Natural History, London). But contrary to Laurie and Hill, the watershed between the two genera has been shifted further south so that *M. tonkeana* (considered by Laurie and Hill as a synonym of *Macaca maurus*) is now arbitrarily assigned to the genus *Cynopithecus*. Arbitrarily? I am afraid so, because no convincing data are given to back up this decision, without which it can carry no weight. It merely serves further to embroil the reader in the confused taxonomy of the group.

The present volume will undoubtedly be welcomed, particularly by applied scientists for whom the macaque monkey is still the centre of the experimental universe. The information and sources that Dr Osman Hill supplies are invaluable to all research workers who will continue to regard his series as the most authorative and definitive available. One will not see its like again.

John Napier

The Biology of the Laboratory Rabbit. Edited by Steven H. Weisbroth, Ronald E. Flatt and Alan L. Kraus. Pp. xi+496. (Academic: New York and London, 1974.) £23.75.

THIS is the first comprehensive text devoted solely to the laboratory rabbit, and it will prove to be of value to a wide variety of scientists concerned with the use of this species as an experimental animal, or who are engaged in the practice of laboratory animal medicine and husbandry.

There are 25 contributors (all from the USA) who provide 18 chapters. The text is supported by numerous illustrations and tables, together with a comprehensive list of references at the end of each chapter.

Chapters 1–3 consider basic aspects such as genetics, husbandry, anatomy, physiology and biochemistry. Additional genetic information is given in chapters 7 and 15, which are devoted to serological genetics and inherited diseases and variations.

More than half the book (11 chapters) is devoted to disease, parasitic infections and pathology, and successfully amalgamates much of the literature scattered throughout scientific proceedings and journals.

Chapter 4 is concerned with biomethodology and details many basic techniques and procedures.

Chapters 5 and 6 contain comprehensive reviews on the rabbit foetus in experimental teratology and on arterio-sclerosis research, and chapter 8 provides a sound introduction to gnotobiology.

Any attempt to consolidate information economically will leave gaps, and this book is no exception. Nevertheless, it can be thoroughly recommended for study and reference. **John Bleby**