

vital shift in emphasis of the work at Gombe over the years; the research workers there are no longer studying chimpanzees alone; they are gradually coming to study an entire ecosystem. This underlines the fact that conservation does not merely entail the protection of single species. At Gombe, for instance, it would be necessary to protect the prey as well as the chimpanzees themselves in order to maintain the natural situation.

The study also clearly shows the dangers of artificial feeding of wild animals ("provisioning") as a means of rapidly reducing their fear of man. There is a strong possibility that the provision of bananas at Gombe increased contact between chimpanzees and baboons and thus led to exaggeration of the normal level of predation on baboons.

This excellent book is a strikingly good example of a well-planned and conducted field-study. The text is well-written and thoughtful, with an abundance of good photographs, charts and maps. In short, the author has reached a standard of excellence which is comparatively rare in recent books on primates. It is entirely apt that there should be a foreword by C. R. Carpenter, who is justly regarded as a pioneer of primate field-studies.

The relevance of chimpanzee predation to the development of hunting in early man has yet to be fully explored. However, Teleki clearly brings out a paradox which may eventually prove to be of central interest: Despite continued predation, the chimpanzees continue to have tolerant mutual interactions with the baboons, and the baboons do not attack the chimps with their potentially lethal canines *even when predation is taking place*. In the interpretation of this clue to the early origins of human hunting behaviour, Teleki's monograph will be a major landmark.

R. D. MARTIN

Large Mammals of West Africa, by D. C. Happold. Longman, 75 p.

Dr Happold's book comes at a very important time for wildlife conservation in West Africa, for which he makes a strong case. In his chapters on identification, distribution, habits, food and status he builds up his reader's enthusiasm and appreciation for the seventy large mammals, both common and rare, including those in danger of extinction.

In his useful introduction he indicates the link between the book and its companion volume, *Small Mammals of West Africa* by A. M. Booth, which appeared in 1960, and on page 77 he provides a useful page reference summary of information in that book, making it easy to use the two books together.

The general public of West Africa is largely ignorant of its wildlife and is of very limited help to the inquiring visitor. The section on how to use the book is most valuable to both the resident and the visitor, and the vernacular names add appreciably to the book's value. For the rural people the text is within the competence of most of the general reading public, while at the same time police, customs officers as well as foresters and game wardens who have to enforce conservation laws, and lawyers and magistrates, will find the book an excellent guide to identifying the species that are being smuggled under their noses due to their ignorance of the facts. Teachers and students at all levels of education who have to do more and more with ecology will find the book very useful. It is a must for the visitor.

Sixty-eight of the seventy large mammals covered are illustrated in colour or black and white photographs—the two missing ones, the Cameroon otter *Paraonyx microdon* and the blue duiker *Cephalophus monticola* are admittedly rare, but even a sketch would have been welcome.

Dr Happold describes the reserves where large mammals are being conserved with a plea for the establishment of more such areas to cover all

the vegetation zones and varied habitats. The reserves may be in no way comparable to East African parks in terms of animal numbers and diversity of species; nonetheless, given time and proper management, they will recover to their carrying capacity. The book is therefore equally for the politician as well as for the administrator.

There is a useful list of books for further reading which again shows how little is published about the large mammals of this region.

E. O. A. ASIBEY

The Gardeners of Eden, by A. D. Graham. Allen & Unwin, £4.00.

No professional biologist or naturalist would deny that we need to extract some of the sentiment and emotion from the conservation movement and inject some ecological commonsense into its practice.

In the course of ten rambling chapters, the author of this book attempts to outline man's attitude to wildlife in general and its conservation in particular. He begins with a brief historical outline of hunting and the concept of game preserving (or 'saving'), and from here leaps to the situation in East Africa where, with the aid of government reports and a great deal of conjecture, he describes what he considers to be the dichotomous impulse to kill on the one hand and to protect and preserve on the other.

To attack early wardens such as Pitman and Ritchie for their lack of ecological insight must surely be done with the benefit of 1973 hindsight. At the time when these men were attempting to build up game departments, and to stand between the pressures of land usage on the one hand and wildlife on the other, ecology was an academic discipline understood by only a handful of trained biologists. They worked with a natural history background and an energy and zeal that is often sadly lacking in our modern society.

Mr Graham then attempts to explain 'why men preserve and ultimately save wild animals'. He does this largely by recourse to the fields of behaviour and psychology, concluding with the assertion that 'game saving is nothing more than the outcome of repressed aggression redirected on to animals by humans paralysed in their relations with their fellow men'.

At this point one is forced to ask what were the author's motives in writing this book at all. As a work of scholarship, the function of which is to explain the development of the conservation concept, one would hope it could be taken seriously. But as the bitter attacks on individuals accumulate, and the reader is presented with the sweeping generalisation that 'game preservation provides a refuge for human malcontents', one ceases to do so. Indeed one cannot help feeling that the psychoanalysis of the game-savers' motives tells us more about the apparently deeply embittered writers than about the game savers.

Nobody would surely dispute that the call of the wilderness often attracts individuals who want to escape and have decided that the peace offered by these regions is worth preserving. But to suggest that their motives can only be explained by recourse to the more sensational realms of Freudian psychology, oedipal complexes and phallic symbolism does little credit to the cause of tropical ecology or to the author's scientific reputation and motives. On the few occasions when he uses unquestionable scientific facts to support his thesis, they are treated with the same air of contemptuous ridicule. Although no student of Pleistocene biology would accept the theory of a Pleistocene overkill as proven beyond doubt, to dismiss the concept briefly as a myth suggests that the author is not familiar with the literature on the subject.

It is a pity that, in writing about such an important subject, the author should have allowed himself to fall into the snare of the very emotionalism