

The Ape Within Us, by John MacKinnon. Collins, £6.95.

John MacKinnon first published his material on wild orang-utans in *Oryx* in 1971. Since then he has completed a full-scale monograph and written a book about them: *In Search of the Red Ape*. He is, in other words, the true pioneer of orang-utan research in the wild. He is also one of that small distinguished band of primatologists who have conducted their observations in wholly wild conditions, without distorting the environment—and hence the animals' behaviour and social life—by introducing feeding techniques to draw them into closer range. He has followed the apes where they led him, and that is the *only* way to discover their true way of life. Further he has also observed in the wild gorillas, bonobos, chimpanzees, gibbons and siamangs. In other words, he has made field studies of every ape genus alive today, the only living person, I believe, to have done so. This achievement makes him the world's No.1 field primatologist as regards the apes.

This book begins with several excellent, rounded chapters on the various apes, from the territorial siamang and gibbon with their vocal battles and small family groups to the lordly gorillas with their large ranges and silverbacked males. Chimpanzees are described at Gombe, where he did not just stay in camp but followed them on their travels, and two chapters are devoted to orang-utans and bonobos, the pygmy chimpanzees, about which he has discovered a good deal. Part 2 gives an account of our ancestral line, from the early apes of the Miocene to the hominids of the Pliocene and Pleistocene. The aim being to show the unbroken succession of generations that links us to creatures with ape-like proportions and ape-sized brains.

In Part 3 the object of the exercise begins in earnest, with the author's strenuous, ingenious and unremitting efforts to show how the facts of man's ancestry and a knowledge of the extant apes leads to the conclusion that man's present-day psychology, development from infancy, behaviour and inclinations, reflect an underlying ape-like way of life: *The Ape Within Us*. Thus the author's ideas in this section must inevitably land him in the same kind of controversy (and academic trouble) as the ideas of Ardrey, Morris, Lorenz and a host of lesser authors provoked. MacKinnon scores in that he knows his apes at first hand. But alas there is still the problem of ethnocentrism. Although he has clearly read about and observed peoples with customs other than our own, he is clearly not familiar with the detailed exposition of the thought processes underlying the actions of alien societies to be found in the studies of social anthropologists. Thus he had recourse to a rather too global analysis of man, treated as man the species, with individual tribes relegated to the status of examples of a common theme, which tends inevitably to be the man we know best—ourselves, our kind of western capitalistic, competitive man.

Also his treatment is more modern and infinitely better than those that have gone before because it is mostly phrased in terminology deriving from our present understanding of the processes by which group behaviour and social life are explicable only in terms of their ability to enhance reproductive success, an *individual* business. Behind the altruism lies the selfish gene. This of course is zoological thinking and as such it must depend for its success on the adequacy of such thinking and theory for the comprehension of human action. Many serious students of the human condition would reject the idea that there is a meaningful continuity between our ancestors and ourselves in anything other than our physical form—that our psychology, development, tendencies and aggressiveness are a few of the manifold expressions of historical, economic and social processes. If they seem similar to what is seen in animals, that is because the observer of animals sees them in man too; what John MacKinnon sees in the mirror is a zoological reflection of man, for he sees with a zoologist's eye. Doubtless there is some truth in the zoologist's vision, but there is always the danger that it tries to explain too much.

This is a very well written book, a pleasure to read. It may indeed be a feature of those who have spent many months or years in the world's lonely places that they have, through an appreciation of things non-human, an honest and open way of expressing themselves that cannot be obtained in the laboratory or the busy worlds most of us inhabit.

V. REYNOLDS

Biotopes of the Western Arabian Gulf, by **Philip W. Basson, John E. Burchard jnr and John T. Hardy**. Aramco, Dhahran, Saudi Arabia*

A Guide to the Common Reef Fishes of the Western Indian Ocean, by **K. Brick**. Macmillan, £2.95.

It is not often that one encounters a scientific work masquerading as a coffee-table book. This is indeed a lavish production and one that would have been impossible, on cost grounds, for a scientific book publisher to produce. For that alone, we must be grateful to Aramco. Within the 284 pages, there are 189 figures, the great majority in well reproduced colour.

The first section 'organisms and environment' deals simply with various aspects of ecology, relevant to the scope of the book, defines the various terms used, and gives a short account of the physical environment of the region. The bulk of the book consists of a detailed survey of the various biotopes. Intertidal biotopes are discussed under two headings (exposed coastal beaches and tidal flats); subtidal biotopes under four headings (hard and soft bottoms, grassbeds, coral reefs and islands, and artificial structures); water column biotopes are divided into plankton, nekton and hypersaline environments. All the taxa from whales and birds to algae are duly considered.

The last section contains the glossary, a reasonably comprehensive bibliography and species lists for each biotope. The index is good, although it is here, perhaps, that the first omission becomes obvious: there is only one entry for pollution, and that refers to DDT; oil pollution is not mentioned. It would be interesting, and indeed important, to know whether the area selected for study has escaped oil pollution and if so, how?

The Indian Ocean guide starts with a useful map, showing the currents and some of the localities mentioned in the text. The preface is honest. The author explains his motives in compiling this layman's book and praises more academic source books. Parenthetically, it may be noted that his enthusiastic approach is enhanced by his inability to spell ichthyological.

The first three chapters are good simple explanations of the background to the existence of the coral reef fisheries, dealing with the hydrology of the region, the nature of corals and the structure and formation of the reefs. In particular I should like to praise his succinct account of the interactions between mankind, the reefs and the crown of thorns starfish. There are mistakes, however, some of them serious. The grey mullets are placed in the Mullidae although in the text they are correctly referred to the Mugilidae, but the most heinous crime, to those of a taxonomic persuasion, occurs in chapter 4 where he dates binomial nomenclature from Linnaeus 1735 whereas all other zoologists date it from 1758. Chapter 5 discusses the biological importance of the various types of colour patterns observed in reef fishes.

The major part of the book is devoted to descriptions of the reef fishes, which seem adequate for identification. The drawings are not especially accurate, there are discrepancies between e.g. the number of scales drawn and the number present according to the text. However, in compensation, there is a large number of colour photographs.

K. E. BANISTER

* Not available in bookshops; interested specialists should write to Aramco, Engineering Dept., Laan van Meerdevoort, 55 The Hague, Netherlands.