

out very many of these suggestions and I cannot help wondering whether some of them are as useful as they appear. But it must be admitted that what may be successful with one class is not necessarily so with another; the user makes his own selection.

The experimental details are often good; for example, it is pointed out that the gas supply in some districts may no longer contain the respiratory poisons so useful in anaesthetizing protozoa; yet the important warning for these times that glassware used for protozoa must not be washed in detergent is not there. The importance of identifying an animal and the use of comparative studies are both stressed, yet inexplicably all sea anemones are lumped together as if their behaviours would be the same. And in her desire to hang the experiments on a framework of theory, the author makes some remarkable statements; surely, for example, the molluscs can hardly be called an "aberrant" group? It is perhaps misleading to suggest that the reaction of *Hydra* to glutathione has something in common with the reactions of minnows to alarm substances. Although a chemical stimulus is involved in both, the behaviour evoked is quite different and almost certainly the receptors involved bear little likeness to each other.

Nevertheless, this book contains many useful ideas which should stimulate teachers to try again with experimental work in behaviour. They will not lack direction for their theoretical reading, for Miss Hainsworth supplies a good list of selected references. The book is attractively produced and, apart from the transposition of two legends, the illustrations are clear and informative.

J. D. CATHY

WATCHING BIG GAME

A Field Guide to the National Parks of East Africa
By John G. Williams. Pp. 352+32 plates. (London: William Collins, Sons and Co., Ltd., 1967.) 45s. net.

THIS book has three sections which describe the wild life areas, their mammals and their rarer birds.

Sixty faunal areas covering about 50,000 square miles are discussed. Places of ornithological interest such as the Uganda forests are detailed, while some areas like the 11,000 square mile Selous are treated briefly and yet others, Ankole, for example, although faunistically interesting, are scarcely mentioned. However, due emphasis is placed on such new and exciting parks as the Ruaha, Kidepo and Meru. Accompanying these descriptions are comprehensive check lists of birds and mammals with maps and details of communications, which will be useful to tourists when planning their itineraries.

The mammal section occupies a sixth of the book and is disappointingly brief about such conspicuous creatures. The larger mammals and bats, of which the author is particularly knowledgeable, are emphasized while Murids, with their attendant taxonomic problems, are dismissed as "seldom seen unless specially searched for. . ."

Concise descriptions of the mammals include details of their distribution and habitat, but I would also welcome descriptions of their seasonal movements and, for night identification, their calls. Some of the information in the literature on demography, nutrition and ethology would also be relevant. Such information when given is occasionally misleading; for example, we are told, without further qualification, that the "hippo" is 14 ft. long.

Why is far more space given to the rare Uganda cormorant than to elephants, despite the latter's importance in many park ecosystems today? There is, for instance, no mention of their huge mobile ears as useful characteristics for distant identification or of the Congo race found in the Semliki Valley. The answer lies partly in John Williams's years of experience in the Coryndon Museum, Nairobi, and his intimate contact with the living material

while on safari, from which he has acquired unparalleled knowledge of their taxonomy.

His taxonomic approach is essential in the section on rarer birds. It is here that the Peterson method indicating diagnostic characters on the plates by pointers is most valuable. The plates drawn by Rena Fennessy, famous for current wildlife issues of East African postage stamps, although superb would benefit from a scale. This section supplements the author's previous field guide to the commoner birds, to which there are abundant cross-references and without which visiting ornithologists will be lost.

This book will require regular revision to keep pace with scientific work, new areas and sightings such as greater kudu and oryx now confirmed from the Kidepo or to delete species like the Queen Elizabeth Park hunting dog.

Our changing knowledge is emphasized by an example from the area with which I am most familiar: Ishasha lions do not climb trees so much to see over the grass, which is in any case short, but to avoid flies and heat.

This then is a guide for the taxonomically orientated tourist and the ornithological enthusiast. I hope that it will stimulate others, including East African school-children and potential ecologists, to a greater awareness of these little known areas. CHRISTOPHER R. FIELD

OBITUARIES

Professor J. H. Taylor

JAMES HAWARD TAYLOR, AM, PhD, FGS, FRS, who held the chair of geology at King's College, University of London, was one of Great Britain's most distinguished geologists. His death by drowning while engaged on underwater research in the Seychelles is a sad loss to the science.

Educated at Clifton College and King's College, London, he obtained a Henry Fellowship to Harvard in 1933, returning to take up an appointment to HM Geological Survey. From this he was appointed professor of geology at his old college in 1949.

His initial interest was in igneous rocks, which he studied in Leicestershire and the Isle of Man. His work at Harvard, on the Little Belt Mountains, Montana, led him to a study of mineralization, while his early work with the Geological Survey in the west Midlands stimulated his interest in the sedimentary formations. These interests coalesced when, during the Second World War, he was engaged on the study of the Northamptonshire iron-ore field. He made the petrology of these ores his special study, and his memoir on them has become a standard work on the subject. At the same time he maintained an active interest in their field occurrence, and with S. E. Hollingworth and G. A. Kellaway established the importance of periglacial superficial movements in their disposition. This in turn led to a study of the Pleistocene sequence and the geomorphology of the area.

A student mapping project in the central Weald revived his interest in these sediments, and his studies of this sequence are among his latest publications. He retained his interest in economic ores, however, extending his work to Broken Hill, Rhodesia. He was greatly interested, through earlier studies of Jurassic limestones in the English Midlands, in the genesis of these rocks, and in 1963 initiated a project to investigate recent limestone formation on the Seychelles Banks. Some of his students' work on this had been published, and the project contained the promise of exciting contributions in this new and expanding field. He travelled widely, in Europe, Africa and North America, and had a wide and varied knowledge of geology outside his special interests.

All Professor Taylor's work was marked by a meticulous