valuable paper on newer electrode systems; and Kemula outlines his now well-known chromatopolarographic technique. Milner's succinct description of sample treatment should prove of greatest value to practising analysts.

The second volume concludes with several readable chapters by various specialist authors on the applications of polarography to metallurgical, pharmaceutical, biochemical and other related forms of analysis.

There can be little doubt that as a collection of up-to-date reviews of scientific advances in this ubiquitous field, this publication will win much acclaim from those serious disciples of the Heyrovsky method.

D. T. LEWIS

AN INTRODUCTION TO MAMMALS

Introduction to Mammalogy

By Prof. E. Lendell Cockrum. Pp. viii+455. (New York: The Ronald Press Company, 1962.) 9 dollars.

Laboratory and Field Manual for Introduction to Mammalogy

By Prof. E. Lendell Cockrum. Second edition. Pp. v+116. (New York: The Ronald Press Company, 1962.) 4 dollars.

THE production of a book designed primarily for college students and entitled *Introduction to Mammalogy* would seem to be an ideal opportunity to correct the impression frequently given by an orthodox, elementary, vertebrate course that the class Mammalia consists of rabbits and rats (with dogs' skulls). The book is divided into two sections, the first comprising six chapters on the "Biology of Mammals", and the second a systematic treatment of the class with an account of each family. Both parts leave much to be desired. The first section is indeed a useful and comprehensive account of general mammalogy, but it seems a pity that the opportunity was not taken to omit much that can be found in any vertebrate text-book, and include more information on more strictly mammalian characteristics. Much space is occupied by trivialities, for example, the same space (one paragraph) is taken to describe the fluorescence of some pelagos under ultra-violet light as to describe the scent-glands, which play a dominant part in the life of most species of mammals. Inaccuracies abound; for example, in the labelled illustration of a skull (coyote) the zygomatic arch is called the rostrum and the mandible the maxilla.

The systematic section would be an invaluable compilation if it were accurate. In fact errors occur on page after page. Each family is accompanied by a map of its world distribution, most of which show gross inaccuracies. For example, the Dasypodidae (armadillos) are shown to be confined to the north-eastern half of South America, when in fact they reach Patagonia; apes are shown on the East African coast; the Indian river dolphin is correctly described in the text as being confined to the Rivers Ganges, Brahmaputra and Indus, but although these rivers are clearly indicated on the map they are left blank, while southern peninsular India is shaded: rhinoceroses are indicated as absent from both India and West Africa, which fortunately is not yet the case; and squirrels are shown to be absent from West Africa, a situation that would save many a taxonomic head-

ache if it were true. The text is scarcely more reliable. The statement that the gaur (the Indian wild ox) is a typical African species is enough to dispel any confidence in any of the great mass of potentially valuable information contained in this volume.

The accompanying laboratory and field manual contains keys to the genera of North American mammals and many useful suggestions for practical work. But the exercise of filling in blanks with observations is scarcely likely to develop an original, inquiring approach to any subject.

G. B. CORBET

PATHOLOGY OF TREES AND SHRUBS IN BRITAIN

Pathology of Trees and Shrubs

With special reference to Britain. By T. R. Poace. Pp. xx+723+16 plates. (Oxford: Clarendon Press, 1962.) 90s.

THIS is no mere description of diseases of trees and shrubs. It is far more than that, and it is so compiled and written that it will be of great value to those interested in the pathology of trees and shrubs, be they forester, student or research worker.

More than one-third of the book is devoted to an exposition of the various agencies which may cause damage to trees such as climate, unsuitable edaphic conditions, man, animals, insects and plants. This section includes well-written summaries of diseases of general importance in the nursery and on stems, shoots and leaves. Then follow chapters on the diseases of forest trees grown in Britain and a chapter on the diseases of ornamental trees and shrubs. Control, pruning, tree surgery and quarantine measures are adequately dealt with and there is a valuable list of host species. All this information is due to the author's own experience in Britain, in Europe and in North America, and to his having consulted a vast amount of world literature. The listed bibliography amounts to nearly 2,500 entries and this section alone will be of great worth to research workers and others requiring more detailed information about a particular subject.

Although one agrees to a certain extent with the author's contention about changes in botanical nomenclature, it is a pity that he has held out so strongly against such names as *Picea abies* and *Quercus petraea*, which even most diehards have accepted, except perhaps some French foresters.

The author is quite emphatic about not attempting to provide keys for identification purposes. The book is concerned with the symptoms and diagnosis of tree diseases and therefore details of spore-sizes and microscopic anatomy of fruit-bodies have no useful place in it and would add considerably to the book's already large size if they had been included.

In the preface Poace feels that he may have been over-ambitious in attempting to cater for a wide range of needs. No apology is required, for a work of this kind has long been wanted. It has succeeded by the material provided and by the way it has been presented and illustrated. Tom Poace was chief research officer of the Forestry Commission. This book is a worthy memorial to his work. His untimely death last September more or less coincided with the date of publication.

C. J. TAYLOR