

on historical aspects and early work, and in several chapters careful reading is required, as the general theme passes through a maze of previous ideas, experimentation and thought, before more recent concepts are expounded and further compared. However, even though the book is often an exposition of previous and current work, an attempt is made when appropriate to provide critical assessment.

The part local anaesthetics play in the temporary alleviation of pain during surgery is well known, and the continuing search for newer and better agents serves to illustrate the importance of these drugs and the fact that even those of more recent development suffer from certain clinical deficiencies, a point stressed in the final chapter. Much knowledge has, however, still to be gleaned and this textbook with its well documented account of past development, the deficiencies and properties of current drugs, and the experimental techniques used for the assessment of new drugs, should do much to stimulate further interest in the subject and provide an excellent comprehensive reference and reading text, not only for pharmacologists, both graduate and undergraduate, but anyone with an interest in local anaesthetics.

A. J. DUXBURY

Pesticides Around Us

Pesticides in the Environment. By Robert White-Stevens. Pp. xv+270. (Marcel Dekker: New York, June 1971.) \$23.50.

THE current widespread interest in all forms of environmental pollution by chemicals ensures an extensive potential audience for any work with the title *Pesticides in our Environment*. This is the first of five books to be published as parts of two volumes under this title. This first part of the full volume, and the part yet to be published, together deal with the more theoretical aspects of pesticidal chemicals, whereas the second volume will deal with the more practical problems of handling pesticides in the environment. The editor of the series, Dr R. H. White-Stevens, now heads the Bureau of Conservation and Environmental Science in New Jersey, and has had considerable experience of research in the agricultural chemical field.

The professed aim of the series, as stated by the editor, is to present in authentic objective terms, the properties, functions, utility and contributions of pesticidal chemicals to human welfare, and to provide data that will enable the optimum combination of efficacy, safety, reliability, economy and environmental improvement to be attained.

Unfortunately, it is impossible to judge accurately from this first book in the series whether these ambitious aims will be achieved when both volumes have been published.

This book comprises three sections all written by well qualified authors. They discuss the chemistry and biology of pesticides (R. L. Metcalf), the metabolism of insecticides and fungicides (T. R. Fukuto and J. J. Sims) and the metabolism of herbicides (J. E. Loeffler and J. van Overbeek). The chapters are well written and serve as an excellent, chemically oriented, introductory text and reference work on pesticides. However, they are written so as to appeal more to practising scientists than to the layman, at whom they also profess to be aimed. It is a great pity that the book lacks an index, because this greatly lessens its value as a rapid reference text. One other shortcoming is that, if the discussion is to be really pertinent to the title of the series, the relative persistence of pesticides should be discussed, but it is not; perhaps this omission will be rectified in the second volume of this series. However, these criticisms are minor and do not detract from any appreciation of the efficient and workman-like way in which the sections are written.

The standard of production is good and the layout pleasing and suitable for the subject matter, but the price will probably prove a considerable obstacle to many potential readers. There is no doubt that this book is a useful new addition to the literature on pesticides, providing information that may not be readily available elsewhere.

CLIVE A. EDWARDS

Feathered Friends

Man and Birds. By R. K. Murton. (The New Naturalist.) Pp. xx+363 + 32 plates. (Collins: London, May 1971.) £2.50.

CONFUSINGLY, an earlier volume in this New Naturalist series, by E. M. Nicholson, appeared under the title of *Birds and Men*. However, while Nicholson in 1951 could point out how little was known about the precise relationships of birds and men, Murton can show how much has been discovered. It is salutary that less than one-sixth of the references cited here were available to Nicholson when he wrote his book twenty years ago, and many of these are merely old, unquantitative records showing that a particular problem is not new. To quote but one example, Nicholson does not mention the oyster-catcher, which is thought by some to have a serious effect on the cockle industry; twenty years later, after the Ministry of Agriculture,

Fisheries and Food has spent perhaps £100,000 investigating the matter, Murton can devote thirteen pages to the problem based on many published works, mostly dating from about 1957.

Man and Birds contains an amount of theoretical population biology which the amateur may find somewhat heavy going, particularly the second and third chapters (on ecological considerations and predators and prey). Notwithstanding this, there are few places where such matters have been so forcefully put. The fundamental concept of population ecology is probably that of density dependent mortality; at certain seasons of the year, animals, as a result of reproduction, are usually commoner than some resources that they need. A number (usually relatively large) of them must die as a result of competition for the resource. If man kills a proportion of the animals it does not follow that breeding numbers will be reduced; usually they are not because individuals which would otherwise have died in competition with their fellows are now able to survive in place of them. This point, together with the rapid rate of increase (or recovery), when birds are scarcer than usual, is still often overlooked by people who seek to control or to protect birds.

Some 180 pages of the book cover, by species, the birds which impinge on man's activities; the section is of great value, for the author clearly knows his literature. Two final chapters cover birds and industrial man (including fouling of buildings and bird strikes and aircraft), and wildlife management (future methods of control, such as tape recorded alarm calls and distasteful compounds).

This is a very valuable review which will be widely read. However, since it was written for a market which is, to some extent, "popular" it could have been more simply written, and fewer digressions into methodology (and subjects such as photoperiodic physiology) would have made it more concise. So vast is the scope that no two people would agree on what should be included, but I would have included more about man's affect on the birds. Even the most ardent bird-hater must appreciate that massive mortality of birds may give him an early warning of something that he is doing which may ultimately back-fire on himself; large losses of sea birds, particularly the auks, are potentially important from this aspect. Also there is relatively little about bird problems outside Europe. The small finch *Quelea* in Africa does perhaps many times more damage than any birds in Europe. Problems in North and South America and elsewhere on rice-eating birds have been studied in some detail as have those of birds in vineyards, but these are barely mentioned.

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