

The price is not unreasonable for such an illustrated work, whose usefulness could outspan a decade or more and stimulate work in the habitats of this Linnaeus-obscured group of animals. European field workers should not be without it. One anticipates with interest the possibility of a sequel on the Mediterranean and Near Eastern species to complement the southern and south-eastern European species' ranges that are alluded to in the text.

M.R.K. LAMBERT.

The Sulidae—Gannets and Boobies, by J. Bryan Nelson. Oxford U. P., for the University of Aberdeen, £40.

The aim of this in every sense great book, as set out by the author in an admirably concise introduction to the half-million words of its 1012 pages, is to marshal the results of nearly 20-years-worth of obsession with one of the most fascinating and distinctive of avian families. It was to be done in such a way that details of any particular aspect of the life history of the nine species (Dr. Nelson treats the anciently differentiated trio of gannets, North Atlantic, Cape and Australian, as members of a superspecies, and there are six boobies) can readily be located; that it 'makes sense' of the details; and that it presents them in a style that preserves the seabird atmosphere, thus ensuring that the book is 'browsable' as well as authoritative.

The task, for which the adjective 'mammoth' is almost unavoidable, has been carried out with skill and success. Although four-fifths of the space is devoted to species-by-species accounts (and over a fifth of that to the archetypal bird of the Bass Rock), the frequent comparisons made in the course of discussion are drawn together and analysed in a final 100-page chapter and also reflected in several of the 116 appendices. The latter include contributions by Drs C.J.O. Harrison and W.R.P. Bourne on the fossil record and the impacts of marine pollution respectively. Enormous trouble has been taken to assist both researcher and browser by cross-references, summaries at the end of chapters, and a comprehensive index. Although it is not surprising with such a mass of material that some errors have crept in, they are commendably few.

The main emphasis of the book is on ecology and behaviour, the masterly exposition of which is illustrated by John Busby's beautiful line drawings of behaviour patterns and by a remarkable range of photographs, in which those of breeding sites are of special interest. The two together, with diagrams, total over 400 figures and there are also 32 superb plates, 14 in colour. Altogether a real *magnum opus* at a price not too out of keeping with the pleasure and inexhaustible fountain of data it should provide.

HUGH F.I. ELLIOTT

Ecosystems of the World: Volume 1, Wet Coastal Ecosystems, edited by V.J. Chapman. Elsevier, US\$49.95.

This is the start of an ambitious series of 29 volumes (overall editor, D.W. Goodall) which 'will become a basic work of reference, indispensable for any library serving ecological needs'. Apart from the problem of finding some \$1500 at present prices, this could well be a valid statement. Certainly this first volume is very impressive and beautifully produced.

It deals with salt marshes and mangal (mangrove swamps) down to extreme high water mark; the seaward beds of intertidal vegetation are to be considered in a separate volume. There are general chapters on physiography, soils and animals which set the scene in thorough detail, followed by accounts of the formations as they occur in the different geographical regions, each by an acknowledged expert. Finally there are two chapters on exploitation which are of particular interest to the conservationist, since, after centuries of mild exploitation, destruction has become the order of the day. 'Reclamation' for industrial sites and airports and infilling with city waste are widespread; the Japanese pulpwood hunger is a new danger to mangal; pollution by oil, warm

water and agricultural chemicals are raising problems, and Vietnam showed the sensitivity of mangal to herbicides.

While many coastal-zone studies have been made over the past decades, most focused on the flora and fauna and their life cycles, and on descriptive ecology. The relatively few (and somewhat conflicting) studies of nutrient cycling, food webs and population dynamics must be greatly extended if forceful scientific arguments are to be advanced to reduce further destruction. High biological productivity is not enough. The benefit to man, direct or indirect, must be demonstrated if the developers are to be given pause. Subtle benefits such as denitrification, sulphuric acid reduction and assimilation of other pollution need to be further studied and emphasised. Much remains to be done, but this brilliant volume provides the basic source book for future research into this undervalued twilight zone between land and water.

G.V.T. MATTHEWS

Mammals of Borneo by Lord Medway. Kegan Paul, £5.

Lord Medway's sojourn in the Orient has been long by some standards, short by others, but most successful by any. Field keys and annotated check lists are often rather tedious, however useful, but Lord Medway has compiled a fascinating account of Bornean mammals. The tone of this second revised edition is set in the Introduction, which evokes the full flavour of the ecology of Bornean rain-forests and the history of studies there.

The twelve orders of mammals represented in Borneo by 34 families are described succinctly, with a key to species introducing the sections on the Insectivora, Chiroptera, Primates, Rodentia, Cetacea, Carnivora and the sub-section on Tragulidae (but not for the Cervidae). The examination of museum material has been thorough, but the descriptions of individual species are rather variable and those of some of the smaller mammals rather inadequate. Reference to distributions of those species occurring outside Borneo would have been useful; so too would have been some maps of distribution within Borneo.

In paperback, with 24 black-and-white plates and running to 172 pages, this is a most useful, concise and lively book, concluding with a comprehensive bibliography extending beyond the references cited to encompass other relevant faunistic, taxonomic and general works relating to Bornean mammals. Essential for any visitor to Borneo, it is also strongly recommended to anyone wishing to broaden their knowledge of Malesian wildlife, especially when read in conjunction with *The Wild Mammals of Malaya* by the same author. The Malaysian Branch of the Royal Asiatic Society are to be congratulated for sponsoring this venture, and in particular for this second edition.

DAVID J. CHIVERS

Tiger: The Story of the Indian Tiger, by Kailash Sankhala. Collins, £7.95.

In this highly readable and evocative account of the Indian tiger, illustrated with splendid colour photographs, the author distils the experience of twenty-five years, the later years more particularly devoted to the tiger. After serving in the Indian Forest Service, in 1962 he became Director of Delhi Zoological Park, and in 1972 head of Project Tiger, the world-wide attempt to save the Indian tiger from extinction. He records facts about the tiger which I have seen nowhere else mentioned: clearly, this was made possible only because he created for himself the unique experience of virtually 'living' with tigers both in captivity and in the wild for extended periods.

The first part of the book deals with the tiger in the wild and describes its hunting, feeding, family life, and relationship to prey and other animals in its habitat. It is interesting that the author does not consider that tigers hold territory, in variance with other observers, for example, McDougal in Nepal. There are, clearly, explanations for both propositions. The second part is concerned with his evaluation of man's impact on