

that Basel Zoo has a captive population of 50 bald ibises? According to the International Zoo Yearbook they had 13. A statement on captive stocks, and their viability, for all other species being bred would have been useful.

My impression is that the publishers have imposed rigid restrictions of format which, while making the book attractive in appearance, have detracted from its ornithological value.

JOHN A. BURTON

Birds of the World: a check list, by **James F. Clements**. Two Continents Publishing Group, New York, \$15.

A Checklist of the Birds of the World, by **Edward S. Gruson**. Collins, £3.95.
Birds: an illustrated survey of the bird families of the world, by **John Gooders**. Hamlyn, £6.95.

A complete check list of the birds of the world has been top of the list of ornithological desiderata for a very long time, in view of the fact that Peters's *Birds of the World*, started in the 1930s still lacks two volumes. Now, as so often happens, we have two plugs to fill the one gap. It is, of course, invaluable to have them; I only wish they had not both been so perversely pragmatic in their way of setting up the list. Just imagine setting out to create a list of birds of the world entirely from secondary sources, i.e. by consulting field guides and regional avifaunas. This is what both authors have done, Gruson more successfully than Clements. Inevitably there are shortcomings – Clements, for instance, has not picked up *Pterodroma barau*, the new Réunion petrel. To my mind the only rational way of compiling a list of birds of the world is to start from Peters, and bring him up to date with the *Zoological Record*. Only with the tyrant flycatchers, the Old World warblers and the Old World flycatchers, occupants of Peters's missing volumes, should it be necessary to build up the list *de novo* from the literature.

Still, we should be thankful for what we have, however out-of-date some of their nomenclature – Gruson has not caught up with *Phoebetria* for two of the albatrosses, and neither author has achieved *Calonectris* in the shearwaters or *Tachybaptus* in the grebes. What is more, Clements caters for the classificatory heretics who like to put the crows near the beginning of the passerines, while Gruson sticks to Petersian orthodoxy and puts them at the end. It is a slight pity that we have two lists with so many differences in the order in which the families are listed.

These two books are for the specialist (who may nark a bit) and for the tick hunter. John Gooders has written a book of quite a different genre, one that will give the greatest pleasure to ordinary bird watchers, and comparable with Austin and Singer's and Gilliard's books on the birds of the world. Though it has been done before, its predecessors are mostly out of print, and it is useful to have it done again in this large volume of 350 pages, with good summaries of the characteristics of each bird family and over 400 excellent colour photographs.

RICHARD FITTER

The Identification of Mammalian Hair, by **Hans Brunner** and **Brian Coman**. Inkata Press, Melbourne £13.25.

This well produced book demonstrates a method of compiling a photographic index to hairs of a limited group of mammals. Unfortunately the title omits the essential information that it is designed primarily for ecologists working on the fauna of Victoria State, Australia.

The first eighteen pages include basic information on hair types, growth and the nomenclature for hair characters, the latter closely following Wildman (1954) with a few modifications. Descriptions of simple techniques and a system for the study of hairs are useful additions to this section and are of general interest. So

too, perhaps, are the figures of 18 introduced species included in the following 150 pages devoted to illustrations of 75 species, although ten genera recorded for the state are omitted.

Each species is contained in one opening; common and scientific names, drawings of hair types found on the rump and photomicrographs selected to show sections, parts of whole mounts and scale patterns are included to show 'the most diagnostic characters'. They serve also to underline the difficulties, not least of which are the numerous types of hairs to be found on one animal and the variations in pattern along a single hair. Even with their years of experience the authors find it difficult to distinguish between some genera, and distinctions between species are usually even more subtle. A key to instant, indisputable identification of pelts and parts used in manufactured goods is what taxonomists, conservationists and customs officials alike hope for; unhappily it is not yet available.

J. M. INGLES

Ornithology from Aristotle to the Present, by **Erwin Stresemann**. Harvard University Press, £11.00.

Erwin Stresemann (1889–1972) was himself a world-leader in ornithology and wrote with great authority. This book was published in German in 1951 and has now been well translated into English by H. J. and C. Epstein and edited by G. W. Cottrell. The author's distinguished disciple, Ernst Mayr of Harvard, contributes a foreword and a valuable epilogue entitled 'Materials for a history of American ornithology' (up to date).

It is a very readable book, full of fascinating information about people and ideas. The first chapter leads us from classical times to the Renaissance. Aristotle, who was born in 384 B.C., laid the foundations of scientific ornithology, but strangely mixed his facts with fanciful notions taken at secondhand. His authority for the view that the detailed study of birds was a worthy occupation for the philosophic mind was cited as justification for the studies in the Middle Ages of such natural scientists as the Emperor Frederick II, Belon, Gesner and Aldrovandi. A stimulus to exotic ornithology was given by travellers returning from America; when Columbus made his ceremonial entry into Barcelona in 1493 he astonished the onlookers by parading 'molti papagalli' (parrots). And two domesticated species of American Indian origin, the turkey and the Muscovy duck, were introduced into Europe.

Chapters 3–15 constitute Part Two under the general heading of 'The development of systematics and the study of evolution'. Here, among many others, we read of Willughby and Ray, of Linnaeus and his opponent Buffon; and of the formal systematists in their last stand against the theory of evolution. The final six chapters constitute Part Three, under the heading 'The development of biology', and include one on the reform of the theory of behaviour.

The book is enriched by scholarship and enlivened by wit. The author's sympathies are shown by the remark in his preface that 'ornithology has ever required the service not only of the intellect, but of the heart'.

A. LANDSBOROUGH THOMSON

The Seas, by **F. S. Russell** and **C. M. Yonge**. Warne, £6.95.

It is a pleasure to welcome the fourth edition 'completely revised, extended and reset' of this classic that was first published nearly fifty years ago. Much has been learnt about the seas and the life in them during those five decades, and the authors have brought their text up to date to include the essence of the new knowledge. The format, larger than in previous editions, gives greater scope for the plates,