

## Book reviews

list of National Parks and equivalent reserves in the seven countries covered); 3. P.R.O. Kio: Nigeria. Obviously Africa could have been better covered and the state of play in SE Asia, India and China would have been a worthy inclusion.

The book ends with three papers which emphasise global concern. Nicholas Guppy put forward the case for setting up an Organisation of Timber Exporting countries (OTEC) the aim of which would be to achieve co-operation between tropical rain-forest (TRF) owning countries so as best to preserve and manage what is often their greatest resource. Since the proposal was discussed at Leeds several tropical countries have shown considerable interest in the idea. I. Rubinoff, in a second paper, proposes a strategy that requires the establishment of a system of tropical moist forest reserves financed by all of the developed temperate zone nations (with a per capita GNP in excess of \$1500 per year). Whilst the World Bank might be able to administer such a fund the proposed advisory committee of experts from organisations such as FAO, UNESCO, UNEP, IUCN and WWF could doubtfully work without considerable bureaucratic reverberations. The third and last paper is by Brian Johnson who looks at Britain's involvement and possible impact. He argues that Britain's potential influence on world use of TRF cannot be measured by its present or potential demand on rain forest products. British Government policy, it is suggested, inclines to making TRF exploitation more attractive to British private investors. Britain has a substantial contribution to make to studies of TRF because we have here in the UK a principal repository of knowledge on TRF, and Britain is a major centre for dissemination of such information. One feels that had we only one remaining substantial tropical colony whose ownership was in dispute or position politically strategic we would have a Government funded Tropical Research Institute par excellence.

Alas we do not and Government funds for tropical research are scattered *very* thinly in the votes of ODA, the UGC and relevant Research Councils and quangos like Kew, and the British Museum (Natural History). Thanks to the sustainable resources of the BES and a few other

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NGOs, this Symposium has given considerable food for thought.

A.C. Jermy, *Department of Botany, British Museum (Natural History)*

### **Bats: A Natural History**

John E. Hill and James D. Smith  
British Museum (Natural History), 1984, £15.00

The publication of this book is timely in view of the recent increased interest in bats. It is a review of the structure, behaviour and diversity of the second largest order of mammals and deals with bats of the world without favouring any geographical area, except as dictated by where research has been concentrated.

In the absence of hard evidence the short chapter on origins and evolution of bats is admitted to be largely speculation, but there is a good review of the evidence to support the increasingly accepted idea that fruit bats (Megachiroptera) have evolved quite separately from the rest of the bats (Microchiroptera).

Both authors are primarily taxonomists, so it is perhaps not surprising that the chapters on 'Form and structure' and that on 'bat systematics' are the longest. The latter includes brief notes on each family, maps of their distribution and a list of all included genera with their distribution and number of included species. Attention is drawn to the many areas where further research is likely to suggest important changes in the ideas on relationships. Surprisingly, this chapter includes some misleading generalisations and minor errors. For example, compared with many bat families, the number of strikingly marked species of Emballonuridae does not merit their description 'as a rule . . . brown or greyish, but some are blackish'; neither do they all have long, narrow wings; and the description of *Rhynchonycteris* is not very accurate.

Other chapters are on flight, food and feeding, thermoregulation, reproduction and development, echolocation and vocalisation, population ecology, and man and bats. All the chapters are illustrated with line drawings and a few black-and-white photographs. Befitting the status of this book as more of a textbook than other general bat

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books available at present, there is a 12-page chapter-by-chapter bibliography.

It is with the chapter on 'man and bats' that I have particular complaint. This includes a section entitled 'Bats and public health', which discusses the bacterial, viral, fungal and invertebrate associations with bats and has very little to do with humans—it is a fascinating aspect of bat biology often omitted from bat books, but one which belongs outside the scope of this chapter. In attempting to justify its place here the authors have suggested possible links with human health which are often, at best, misleading. This is not good for a book that purports to give a more realistic image than the one bats have suffered for so long.

Bat workers will find faults, as with any book, but they will find this a valuable reference work.

*A.M. Hutson, Bat Conservation Officer, FFPS.*

## The Lives of Bats

W. Schober

Croom Helm, London, 1984, £13.95 (Available from FFPS)

Over the past few years there has been a great increase in interest in bats, especially amongst members of County Trusts for Nature Conservation and of national conservation and wildlife societies. This is fortunate, since bats are still regarded with horror by many people and an army of bat ambassadors is needed to educate the public as to the true nature of these useful and fascinating creatures.

One problem that those interested in the Chiroptera have faced is the shortage of available books on the subject. Schober's account admirably helps to fill this gap.

Covering topics ranging from the probable evolutionary development of bats, through their feeding and breeding habits to the threats currently facing these animals and possible conservation steps it provides a most useful introduction to these flying mammals. Despite the fact that bats are hard to study, a great deal has been published on them in scientific journals, so to find only 48 references at the end of the book is a little disappointing.

Most of the photographs are good, but the shot of

the serotine in flight suggests that the open mouth, typical of an echo-locating bat, can be seen. This is certainly not the case. Some of the other flight shots are not up to the standard we have come to expect in wildlife photography nowadays.

But these are minor faults—this book should be required reading for all Bat Group members and for anyone who comes into contact with these much misunderstood animals.

*Henry Arnold, Institute of Terrestrial Ecology*

## The Fauna of the Hortobagy National Park Vols 1 and 2, and The Flora of the Hortobagy National Park

Editor-in-Chief, Z. Kasab

Budapest, 1981

Obtainable for £25.00, £25.00 and £12.50 respectively from Collets, Denington Estate, Wellingborough, Northants NN8 2QT, UK, plus postage—say £1.50

These volumes comprise a series of papers, 48 in volume 1 totalling about 400 pages, 46 in volume 2 totalling about 500 pages and eight papers in volume 3 totalling about 175 pages. Almost all of the papers are faunistic treatments with lists of species being dominant. The paper on birds (pp. 391–407 in volume 1) is the only one the present reviewer feels competent to comment upon.

The 215 bird species known to have occurred are biologically grouped by freshwater, grassland and woodland habitats, each subdivided by finer vegetational subdivisions in the case of the 106 nesters. The 109 transients are separately listed.

*Jeffrey Boswall*

## The Mammals of the Southern African Subregion

H.N. Reay Smithers

University of Pretoria, Republic of South Africa, 1983, R100

In outline based on the author's former works on the mammals of several southern African countries, the present book has to be considered as a masterpiece, admirable for the enormous mass of information collected. It fills a long-felt gap for anybody working with the mammalian fauna of southern Africa. With gloom one reflects that not more is known about many of the listed

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