

Lemurs

Lemur Biology. Edited by Ian Tattersall and Robert W. Sussman. Pp. xiii + 365. (Plenum: New York and London, 1975.) \$27.54.

THIS is a progress report of recent studies. To emphasise the breadth of modern interest in lemurs, studies from several disciplines have been drawn together. There are five sections: an introduction to lemur biology (the history of the study of lemurs; the Madagascan environment); systematics and evolution (comparative studies of chromosomes and teeth); morphology and physiology (studies of cranial anatomy, postcranial skeleton and body temperature); behaviour and ecology (studies of several little-known lemurs including *Indri*, *Phaner*, *Hapalemur* and *Propithecus*); and an epilogue on conservation and extinction. The editors emphasise that "the interpretations in each of these fields are dependent on knowledge of each of the others". It therefore seems reasonable to expect them to promote

the cross-fertilisation of disciplines by ensuring that individual contributions are understandable to the non-specialist. Although most papers are admirable in substance they leave the non-specialist confused by repeatedly using specialised jargon (for example, terms from cytogenetics, dental and postcranial morphology, behaviour) which is either inadequately defined or not defined at all. Most readers, being less familiar than the authors with Madagascar, may also find difficulty in following the text because of the lack of maps showing topographical reference points and the distribution of species. The usefulness of this style of book is limited unless it is something more than a collection of papers of the type found in specialist journals.

In spite of those criticisms I enjoyed *Lemur Biology*. Its breadth of coverage is refreshing and instructive. There has clearly been a delay in publication and the preface sensibly records the most recent developments.

John M. Deag

Down to Earth

Man's Relation to the Universe. By Bernard Lovell. Pp. vi + 118. (Freeman: San Francisco and Reading, November 1975.) \$5.95.

DURING 1973, Professor Bernard Lovell delivered a series of lectures on astronomy and space research to students at Buffalo University. The content of these lectures is available in an informative little book which carries the somewhat misleading title of *Man's Relation to the Universe*.

Indeed the first chapter is very much down to Earth, with an unusual and entirely welcome discussion about the financial cost of space-age astronomy. We are told such horrors as the (certainly astronomical) cost—\$400 million—of the Soviet 236-inch telescope, although to put it all in perspective, the UK government turns out to spend only 0.02% of the gross national product on all forms of astronomical research.

Stepping into near space Professor Lovell skillfully summarises the results gleaned by the recent space probes to Mercury, Venus, Mars and Jupiter. The explosion of information about these planets is bewildering, but the author delivers a well-balanced and cautious appraisal of contentious issues, such as the 'water on Mars' controversy, but without losing a sense of excitement and enthusiasm.

Moving farther afield, stellar and

galactic evolution are described, and modern discoveries such as quasars, pulsars and (possibly) black holes all get a mention. The discussion is somewhat formal, but never dull or over extended. In spite of the title, there is very little hard philosophy, except on cosmological issues such as the big-bang creation event.

I very much enjoyed reading this book. Laymen of a scientific inclination may find rather too much technical discussion to cope with the content without preparation. Scientists and students will find it a straightforward and engaging introduction to the techniques and results of modern astronomical research.

Paul Davies

Aquatic fungi

Recent Advances in Aquatic Mycology. Edited by E. B. Gareth Jones. Pp. 749. (Elek Science: London, December 1975.) £21.

THE idea for this volume grew from the success of seven sessions devoted to aquatic fungi at the First International Mycological Congress held in Exeter in 1971, and some of the chapters are papers presented at the Congress. It is disappointing that it has taken four years for the book to appear, so that some of the advances are by now hardly recent.

About half of the book, Section I, is devoted to marine fungi; the rest, Section II, to freshwater forms. The marine fungi are considered under two arbitrary divisions—A, Ascomycetes, Fungi Imperfecti and Basidiomycetes; and B, Lower Fungi. Section IA has chapters on lignicolous fungi, mangrove fungi, oceanic yeasts, fungal degradation of oil, physiology, and cytochemistry of spores. I particularly enjoyed the account by J. W. Fell of oceanic yeasts, some of basidiomycetous affinity, which brought together, in a coherent way, material from widely scattered literature of a group which will be unfamiliar to many. Section IB, mostly covering zoosporic forms, includes a general account of marine 'phycomycetes', an essay by F. K. Sparrow on the present status of classification in biflagellate fungi (not exclusively marine), and chapters on fungal diseases of marine animals, physiology of marine 'phycomycetes', fine structure, and ecology. The freshwater Section is also divided into two arbitrary divisions. The section on Ascomycetes, Fungi Imperfecti and Basidiomycetes has chapters on morphology and biology, fungi from cooling towers, sewage, an interesting account of the role of Hyphomycetes as intermediaries of energy flow in streams, and on the interactions between river fungi and DDT. The 'lower fungus' section includes chapters on the morphology of Chytridiomycetes in relation to substrates, fungi on algae, ecology, physiology, aspects of fish disease, ultrastructure, and a valuable review of the Trichomycetes by R. W. Lichtwardt. Aquatic Actinomycetes, although accepted as prokaryotic, are included in a useful chapter by L. G. Willoughby.

The general impression of the book, apart from the uneven quality inevitable in symposium-type publications, is that it will provide useful reference material for those working on aquatic fungi. The photographic illustrations leave much to be desired, especially with respect to size, layout and quality of reproduction. The use of unglazed paper and the faint printing has rendered many of the electron micrographs virtually useless, as is shown in the otherwise excellent article by Heath on ultrastructure of freshwater Phycomycetes. Many of the plates have obviously been made up by their authors to fill a whole page, but have been reduced by the publishers to take up only a small fraction. Much of the space 'saved' by this unfortunate economy has been wasted by the use of large print and author citations in voluminous tables. Moreover, there are numerous misprints. The book will prove far too expensive for many individuals to buy.

John Webster