

But such errors will not detract from the enjoyment of this well written and lavishly produced book—a welcome addition to the many already published on Darwin and excelling many of them in literary style and general presentation.

M. P. HARRIS

**The Vanishing Jungle, by Guy Mountfort.** Collins. 63s.

This account of the author's two fact-finding expeditions to Pakistan to investigate the plight of its once abundant wildlife is a depressing though fascinating story. The losses of wildlife and primary vegetation are greater even than had been feared, the habitat destruction adversely affecting the ungulates and thus depriving carnivores of necessary food. An East Pakistan reserve of 800 square miles was progressively reduced, for various reasons, to a mere 172; everywhere poaching, poisoning and commercialisation of animal products inflicted gigantic losses. Lack of effective control was primarily responsible for this disastrous state of affairs. But the prospect now seems good that many of the animals brought to the verge of extinction will be saved, and that Pakistan's rich heritage is on the road to survival. It is gratifying that the author's wise recommendations to the Pakistan Government, based on the findings of his first tour, were immediately accepted: the Pakistan Wildlife Committee was established and properly guarded nature reserves created. On his second tour the author was able to see how determined the Pakistan Government is to safeguard its wild life.

The wide range of habitats examined included desert, Punjab Salt Range (where the reviewer found urial plentiful in 1913), high altitude mountains (the war deprived the reviewer of a projected visit to the Gilgit Agency in 1915), mangrove swamps of the Indus delta, the wet lands and rain forest of Sylhet, and the Sunderbans (in the Bay of Bengal), still, as in 1910, the haunt of a dangerous breed of man-eating tiger.

Both colour and black-and-white illustrations from Eric Hosking's superb photographs are, as is to be expected, singularly beautiful. Three valuable appendices list respectively mammals (with their distribution), reptiles and amphibians, and birds; a fourth, by Eric Hosking, advises on photography.

C. R. S. PITMAN

**The Antarctic, by H. G. R. King.** Blandford Press, 55s.

Many years of answering questions on the polar regions have inspired the author to compile this Antarctic vademecum to which the plain man can reliably turn for the basic facts. As Librarian and Information Officer of the Scott Polar Research Institute, he is certainly well placed to write a book of this kind for he has behind him not only the support of one of the world's most comprehensive polar libraries but also the counsel of a resident team of experts. This is not primarily a biological text; it comprises the nature of the Antarctic and sub-Antarctic, man's scientific activities in the region and a brief history of its exploration. Nevertheless, something like a third of the text is devoted to a description of the wildlife, and the author has properly laid stress on the fact that here is one of the few remaining areas of the Earth's surface where the native fauna and flora are still relatively free from man's interference. The ecological balance of Antarctica and its surrounding islands is an exceedingly fine one; whole animal and plant communities could easily be destroyed by human interference however unintentional. Two chapters devoted to seals and whales emphasise the almost complete extinction of the fur and elephant seals in the nineteenth century and

the blue and right whales in our own day. Fortunately for the wildlife, the Antarctic Treaty powers have now agreed measures for conserving the fauna and flora. Here at least scientific exploration can take precedence over commercial exploitation.

The book is well furnished with maps and lists of species, but the numerous carefully selected illustrations are in many cases too much reduced in size to be informative.

BRIAN ROBERTS

**Kangaroos**, by H. J. Frith and J. H. Calaby. C. Hurst, London; F. W. Cheshire, Melbourne, £6 6s.

**The Last of Lands**, edited by L. J. Webb, D. Whitelock and J. Le Gay Brereton. Jacaranda Press, \$6.95.

In the 200 years since Cook first mentioned a kangaroo in his journal, the unique Australian fauna has become endearingly familiar and none more so than the marsupials. *Kangaroo*, the first Aboriginal word introduced into the English language, epitomises Australia for most people.

This well produced but expensive book summarises and discusses existing knowledge, much of it acquired through the work of the Division of Wildlife Research to which the authors belong. Well illustrated with line drawings and three pleasant colour plates by Frank Knight, the writing is simple, and relatively untechnical. Historical and evolutionary sections are followed by one on distribution with an interesting comparison between the range of the red kangaroo *Megaleia rufa*, the most widely distributed, and the eastern grey *Macropus giganteus*. Although there is some geological overlap, the species are effectively isolated ecologically and probably differ in water metabolism. The red is a grazing animal of the plains, while the grey kangaroo's range includes coastal heaths, temperate woodlands, sub-tropical forests, cool mountain forests and dry inland scrub. The red thrives best on good grazing land, although aerial surveys have shown it to be less numerous than graziers often believe. Modification of the habitat for and by domestic stock has sometimes greatly improved conditions for red kangaroos; in other places habitat deterioration has produced the more arid conditions well suited to the euro *Macropus robustus*. As a result of myxomatosis in 1950-58, and the decline of the rabbit-meat industry, the export trade in kangaroo meat and skins grew to an annual total of £1½ million—roughly equivalent to 500,000 kangaroos—and a similar number are killed for trade.

Where kangaroos compete with agriculture or grazing, numbers must be reduced, but the authors believe that they should be harvested and hygienically processed as a sustained and managed wild crop, not wastefully exploited. On the other hand, the conservation requirements of the various kangaroos differ between species and localities; there is a real need for greater co-ordination between States and for more reserves.



Successive postures in the bound of a red kangaroo at high speed—reproduced from *Kangaroos* reviewed here.