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.

https://doi.org/10.1017/S0030605300008929 Published online by Cambridge University Press

The title of the second book, taken from a poem by A. D. Hope, refers to the dry, empty, aged continent of Australia, the last to be colonised by man. Because its interesting fauna and flora evolved in the absence of man they are ill-adapted to withstand his exotic introductions; there is also much that is worthy of conservation. The book grew out of summer schools on national parks and nature conservation held at the University of New England, Armidale, New South Wales, in 1964 and subsequently it outlines the principles of conservation; discusses flora, fauna and ecosystems; and summarises the activities of the different States in the field of national parks and nature conservation with an excellent map showing the location of parks and reserves. It is well illustrated—the cover reproduces a Russell Drysdale painting—with a foreword by the Duke of Edinburgh, and all royalties go to the Australian Conservation Foundation.

HARRY V. THOMPSON

Biogeography and Ecology in South America, 2 volumes, edited by **E.J. Fittkau, J. Illies, H. Klinge, G.H. Schwabe,** and **H. Sioli.** W. Junk, The Hague, US $20.80 each.

The impressive richness of neotropical wildlife, which Alexander von Humboldt and Charles Darwin stressed a long time ago, is due to the vast expanse of this continental mass, its mighty mountain system and its incredible diversity. Landscape, climate, flora and fauna are differentiated to a much greater extent than anywhere else. Species are noticeably more numerous than in other parts of the world, and the high proportion of endemics and the absence of some groups that are widely distributed elsewhere give a marked originality to this vast region. Thirty authors contributed to these two volumes with twenty-nine papers, making it a most comprehensive contribution to a modern description of the continent's ecology and biogeography, and remarkably homogenous in spite of the variety of the approach.

Each paper is an up-to-date review and summarises the results of personal investigations by a well known specialist. Several are devoted to general themes—geography, geology, paleontological history, pedology, climate, fauna and vegetation of the whole area. Continental drift, Wegener's hypothesis made a long time ago and now accepted by an increasing number of geologists, is discussed in the light of recent researches. The main ecosystems are analysed and two chapters deal with valuable neotropical plants now cultivated all over the world and with agriculture. Other papers are devoted to biogeographical and ecological analysis of particular groups, and several are concerned with human ecology, from the Indian aborigines to European settlers; one analyses remarkably the impact of man on the environment and another the present status of conservation over the continent. Most are written in English and German, some in Spanish and Portuguese with substantial English summaries.

These papers of high standard constitute a source of first hand documentation. They are also of the highest importance for the conservationist, giving fundamental information on the present status of the most important biota. Most authors emphasise the extreme sensitivity to man's interference of the natural South American environments. A remarkable contribution, by H. O'R. Sternberg, deals with the changes due to man and their magnitude since early human history—fire, shifting cultivation, deforestation of dry woodland, changes in hydrology, weather and climate. Others insist on the rapid destruction of wildlife and habitats in modern