

That much said, I can unreservedly recommend this book to anybody who wants a general account of the vertebrate animals of Australia. One can read the mammals section straight through like a story book. To those to whom Australia means marsupials and marsupials mean kangaroo, koala and Tasmanian wolf, the variety and beauty of the smaller mammals will be a revelation. Many animal ways are finely described—the lesser flying phalanger, or sugar glider, beautifully builds its nest; the tree kangaroo makes its amazing leaps.

The bird chapters can hardly be read in the same way as those on mammals, for there are nearly 700 species of birds in Australia. Neither can this book claim to be a full guide to bird recognition, but at least a few representatives of each group are discussed. I was particularly impressed by the account of the lyrebirds, the bower birds and the mound builders.

There are short chapters on reptiles and fishes, seventy-four plates, many of very high quality, and a good index.

C. L. B.

THE BARREN GROUND CARIBOU OF KEEWATIN. By FRANCIS HARPER. University of Kansas Museum of Natural History. 163 pp., 28 photographs, 1955. \$1.50.

This publication will provide a valuable source of personal observations, of information collected from trappers, Indians and Eskimos in the Keewatin area, and of bibliographical reference to barren ground caribou in general up to 1951. Publication in 1955, therefore, means the loss of consideration of such important work as that of Banfield. The author has been meticulous in recording, a task which he has not equalled in capacity to interpret, prune and collate.

Caribou are rarely still, and though they may be absent from any particular area for several years, the 300,000 square miles of the Barrens of Canada are undoubtedly traversed completely by the caribou in the course of the years. They exhibit a curious rhythm in their migrations in that, after the broadly northward migration in May–June and a southward movement to the woods in August, there is a further but lesser northward thrust to the Barrens in September. The retreat to the taiga for the winter is in October–November.

Men are on the watch for the caribou, ready to intercept them at vantage points; a steady following of the deer through the seasons would be quite impossible. Harper recounts what we have heard before, the wasteful slaughter that goes on year

after year. Fish could well be used for winter stores of dog food, but apparently to kill caribou is rather less trouble. Harper says "Few inhabitants of the North, whether native or white, stay their hands while caribou are present and ammunition is available. There is undue reliance on a continuation of past abundance and an indifference to the welfare or rights of posterity". Hunting caribou calls for little skill, and unfortunately there are far too many .22's in the hands of Eskimos. Only the expert can kill deer humanely with a .22.

What is to be the end of it all? Frankly, it is hard to say. Human predation is increasing and weapons are more lethal. Can Eskimos, Indians and the white men of the Barrens be taught conservation? Can they acquire a conservation ethic? If we are hopeless about this and the answer "No", then the ultimate extermination of the caribou is certain, for there is now the added hazard of increased incidence of fire in the winter grounds.

It is to be hoped that Harper's monograph will be widely studied.

F. D.

THEODORE ROOSEVELT'S AMERICA. By FARIDA A. WILEY. American Naturalists Series. The Devin-Adair Company, New York. \$5.75.

This book is an anthology from the writing of a president of the U.S.A., whose slogan was "the big stick and the square deal". Canada and the Republic of Panama cannot forget occasions when Roosevelt applied the big stick without the square deal, but members of this Society may remember him for virtues which were at least as great as his faults; certainly no one man can have done more to give fauna "the square deal".

Roosevelt was a sportsman of the most virile and best type, one who could write that, because hunting the Bighorn Sheep was "the hardest and most difficult form of sport", it was "for that very reason . . . the noblest . . . always excepting, of course, those kinds of hunting where the quarry itself is dangerous". He was a Harvard-trained scientist, whose passion for accuracy appears, for example, in his insistence on pacing off the distances, at which he and others killed game; the results were often disconcerting to hunters who prided themselves on "long shots" made at ranges they merely guessed. Neither had he tolerance of careless assertions made by museum naturalists, a trait illustrated in the admirable essay reprinted here, "In Defence of accurate scientific Writing." Love both of