The Mammals of the World By Lord Cranbrook

IDEALLY a book on the mammals of the world would include a description of every species, but the very large number involved (4.237 according to Dr. Morris,* 12,000-15.000 according to Mr. Walker, who must surely include sub-species) makes that impossible. In these two books the two authors deal with the difficulty in different ways.

Dr. Morris has the avowed dual purpose of providing a "species inventory" for the professional zoologist, combined with an introduction on the nature and evolution of mammals, with illustrations and descriptions of some 300 representative species designed to give the general reader a broad introduction to the mammals of the world. In his second objective he is conspicuously successful. Each of the selected species is given a whole page, in most cases with a photograph of the living animal (though that of the Rocky Mountain goat looks suspiciously like a stuffed one). The set up is good, the photographs in general arresting and the attention of the general reader is drawn immediately to the description of the animal and the accounts of its habits and distribution which are on the same page. It seems a pity to spoil the ship for a ha'p'orth of tar by putting in photographs of a walrus without any tusks and a pronghorn with immature horns in both cases the most distinctive features of the animal concerned. It seems a pity too to repeat the oft repeated statement that the whalebone whales feed on "minute organisms"; after all the planktonic shrimp Euphausia, the main food of whales in the Antarctic, is about 3 inches long, and in some seas fish rather larger than that are eaten. But these are minor criticisms. Within its limits, photographs and descriptions of 300 species out of 4,000 odd, this is an admirable book for the general reader who, after looking at the pictures, is led on to an excellent introduction and to the "species inventory".

This last is in effect an index to a number of check lists covering various geographical regions. As some of these were compiled by "lumpers" and others by "splitters" the world is not treated uniformly, but, again within its limits, the inventory is none the less useful. Unfortunately, it is very limited. The genera only of Bats and Rodents are listed in order to save space, which means that the list contains rather less than half of the total known number of mammalian species. It is true that it would have been difficult to prepare a species list of the rodents, but these omissions rather discount the author's claim that he has corrected the previous lack of a world list of species:

^{*} The Mammals, by Desmond Morris. Hodder & Stoughton, 3 gns. Mammals of the World, by Ernest P. Walker, Johns Hopkins Press, O.U.P. Vols. I & II, £10; Vol. II, Classified Bibliography, £5.

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he hasn't. The bibliography of authorities used would be helpful to the general reader who wanted to go further with the study of mammals.

Mr. Walker, in two volumes and nearly three times as many pages as Dr. Morris, gives a page to every genus, and on every page a photograph of at least one species of the genus concerned. This is very satisfactory where the order is one of which many species are commonly found in zoos or can be photographed in the wild, e.g. primates or ungulates. It is infuriating when, for the sake of that passion for consistency which is always the enemy of efficiency, photographs of mid nineteenth century drawings, and even of unmounted study skins from museum cabinets, are printed—the latter in some cases accompanied by badly reproduced photographs of broken skulls. apparently just because the skin and skull of the type are therefore pictured. It is even more infuriating when some of these show as an indistinct blur the occlusal surfaces of the teeth of rare species, good pictures of which would be useful to a taxonomist and of interest to the general reader. In fact more than one third of the illustrations are useless: they neither show the reader what the animal looks like in life nor help the taxonomist to identify study material in a museum. Just as ridiculous are the short lists of vernacular names with no indication of the tribe or nation which uses them. These useless pictures and lists of names hit the reader immediately, and a browser in a bookshop would certainly close the book and move on.

But he would be mistaken, because this is a useful book. It doesn't have anything comparable to the introductory notes given by Dr. Morris but plunges straight into descriptions of Orders. Families and Genera, giving a page at least to each with many illustrations, the majority of which are excellent. It is therefore no substitute even for Flower & Lydekker's Mammals Living and Extinct (1891), on which the older of us were brought up, much less for the two volumes on Mammals in Grasse's Traité de Zoologie (1955), but it is a useful complement, covering the ground well, more fully than does Dr. Morris—as it should at three times the cost. It should be in the library of every University and every Grammar School with a biology Sixth. It is expensive for the private individual but well worth saving up for. Covering such a vast amount of ground there are of course a few mistakes, some possibly due to a faulty proof reading: Dasypus cannot roll up into a ball; a cheetah's final rush does not extend to 5,500 metres; Manis tetradactyla comes from West Africa not Asia, etc., but these are a small price to pay for a useful book.

In the appendix to Vol. I and in Vol. III the author attempts the impossible: a Selected Bibliography of about 100 pages and 4,500 titles in the first, and a Classified Bibliography of about 750 pages in the second; obviously this Classified Bibliography must be, and is, highly selective. Even allowing for the fact that the best Selected Bibliography is, like the best anthology of poetry, the one which each man makes for himself, there are some curious omissions. Under

"Piltdown Man" are given three references, dated 1915, 1917 and 1927; Weiner, Oakley & Le Gros Clark's The Solution of the Piltdown Problem (1953) and all that followed might never have been printed. In both volumes the author gives the same "Selected List of Periodicals", just over 100 in all, and half from North America. This is presumably intended to be the minimum necessary for a new departmental library, but it excludes many learned journals which most modern mammalogists would consider essential, such as the publications of the Polish Academy of Sciences, while including a number of newspapers like the Field and Illustrated London News which, useful though they may be, few would put in the first hundred.

This is typical of both bibliographies. They are perhaps better than nothing at all for the beginner but the Classified Bibliography is only a snare and a delusion for anybody who expects it to be in any way comprehensive. It is moreover badly arranged, badly printed, difficult to read and certainly not worth \$5.

MAKING A DESERT

THE following incident in the Semien Mountains in Ethiopia is described by Leslie Brown in his book Ethiopian Episode, reviewed on page 202, and quoted here by kind permission of author and publisher.

As we dropped off the Embaras ridge we came upon a man committing the act of a maniac. At 11.600 feet, just below a small crag, on a slope where effort was needed to keep one's feet, he was ploughing. With phrenetic energy he was goading a pair of oxen to drag a plough through the tussock grass that had grown there for centuries. Another man with a hoe relentlessly dug out any tussocks that escaped the plough. The oxen would stagger a few steps and stop, panting, to be flogged again into reluctant action. Yells of encouragement echoed about the valley, and nearly as much breath must have been spent in yelling as in positive accomplishment.

Never in twenty-three years in Africa, in the course of which time I have seen some pretty senseless acts, had I ever seen anything to equal this. The slope on which the plough was working was so steep that a man could not stand on the loose clods without pushing them downhill; stones and boulders dislodged by the plough rolled downhill of their own accord. To reach this little patch of virgin grassland the man must have carried his plough up the hill—for the oxen could not have dragged it there. The end result of his labours was certain. In a few years the soil would have gone from that slope and it would support neither tussock grass nor crops. In progress before my eyes was the process by which the hills of Tigre had been ravaged and reduced from once fair and forested mountains to barren slopes of scree and scrub.

This was only the first example of many such acts that we would see in the next few days. Yet I am sure that if I had remonstrated with that man, and pointed out the eventual effects of what he was doing he would have thought me insane. After all, he was only doing what everyone else did. The fact that the land at lower levels had become poor necessitated climbing to more inaccessible and steeper slopes, that was all. It was only too evident that any idea of conserving anything, even the soil on which he and his family were utterly dependent, would have been totally foreign to that ploughman.