

a hundred in black and white photographs.

Together these two books provide valuable reference material on a global scale on two subjects that are usually fragmented.

JOHN CLEGG

**From the Edge of Extinction: Endangered Species in North America, by Darryl Stewart. Warne, £6.95.**

Mr Stewart takes 21 species of North American animals rescued from threats of extinction of varying severity. They range from the mighty bison, once 50 million strong, to the tiny Kirtland's warbler, never numerous, and from the now abundant beaver to the California condor, which may perhaps survive only by captive breeding. Each short chapter describes one species, gives a well-researched history of its tribulations and the legislative and other measures for its survival, and its present status and prospects. Every species is illustrated in black and white by the author, a former art student in London.

There is much in this book that is encouraging, particularly when one compares present dedicated conservation efforts with the previous indifference which cost the US (including Hawaii) 70 animals, most of them reaching final extinction in this century. Undoubtedly there has been a sudden upsurge in many countries of an awareness of the need for conservation, but not yet of a comparable awareness of how vast are the sums needed to pay for it. Both voluntary and government support for North American conservation compare most favourably with that to be found elsewhere, but even the US Fish and Wildlife Service (to which this book is gratefully dedicated) still lists 162 native species and subspecies as endangered. Yet funds to save habitats and species in Third World countries, with their desperate poverty and population problems, are much harder to raise, though it is there that they are most urgently needed if irreversible damage is to be kept within bounds in this century.

G.T. CORLEY SMITH

**East African Mammals: an Atlas of Evolution in Africa, Volume III Part B (Large Mammals), by Jonathan Kingdon. Academic Press, London, £55.**

Jonathan Kingdon is nearing the end of his road: this is the penultimate of the six tomes which will span the diversity of the mammal fauna of East Africa. With primates, small mammals and carnivores already behind him (in volumes I, IIA, IIB and IIIA) he tackles here the largest herbivores, reserving most of the even-toed ungulates for the final volume.

He tackles them in his usual way. He draws a profile of each family – elephants, rhinos, equids, pigs, hippos, camels, chevrotains, and giraffes – in which he considers the general themes of structure, evolution and way of life, with more emphasis on the fossil record than in previous volumes. He then takes each species in turn, and describes its distribution, ecology, coat pattern, behaviour, reproduction, and so on, all superbly illustrated as usual with his own drawings. These range from meticulous depictions of the whole animal, the skinned animal, and the skeleton, to the haziest of thumbnail sketches capturing the essence of a particular posture. They are as lively and informative as the text. My only major criticism of the book is that its bibliography is unnecessarily subdivided into three sections, making it both repetitious and maddening to use.

The book contains a fair number of maps, most of which convey the same gloomy message summarised in the Introduction: 'All the species described . . . are in a decline that has accelerated in recent years and can only continue.' The largest mammals are the most threatened because they generally need most land, reproduce relatively slowly, and are often unfortunate enough to carry valuable trophies in the form of tusks or horns. A huge amount of work has been involved in collecting the dismal statistics – for