

unpalatable and are related species which gain mutual benefit from the colouring, and Batesian mimicry where the mimicker is without special protection such as unpalatability but so closely resembles other unrelated types which have these attributes that it, too, secures relative safety. They stress that coloration, ecology and behaviour are inextricably bound together and the survival value of animal colours lies in the way they adapt species for life in a particular environment and in their relationships with other animals. The final section is a brief account of the ways man himself uses colour in disguise and adornment.

The lavish illustrations from colour photographs, mostly taken in the field, and many by the authors, surely provide the best collection of photographs on the subject that has yet appeared in Britain. A bibliography, glossary and full index complete a splendid and handsome volume that gives a concise, easily understood account of a fascinating topic.

JOHN CLEGG

The Cairngorms: their natural history and scenery, by Desmond Nethersole-Thompson and Adam Watson. Collins, £3.50.

The Coastline of Scotland, by J. A. Steers. Cambridge UP, £10.50.

In any short list of the most interesting regions of the British Isles for the naturalist, the Cairngorms would be found jostling with the Norfolk Broads and Connemara for a high place. Except perhaps for north-west Sutherland, it is the largest tract of high-level wilderness we have. And for all round interest, it would probably head the lists of most naturalists for north of the Border. There is something for everybody, and as the number of co-authors indicates, this book is very much a team effort, despite being assigned to the two principal authors. The essay on vegetation by Derek Ratcliffe I found particularly fascinating, but when a region also includes among its specialities red deer, wild cat, crested tit, osprey, dotterel and snow bunting, one is faced with an embarrassment of riches. Nor is the interest by any means confined to the plants and the higher vertebrates. Geology, physiography, soils, climate, invertebrates and Gaelic place names are all discussed by the appropriate specialist. This is a book both to read for pleasure and to put in the car or rucksack for your next visit—yes, miraculously it is actually of a size and weight that do not make it too great a burden to carry in the field.

The same could almost be said for the slightly larger and heavier work by Professor Steers, which complements, though not on the same detailed scale, his magisterial survey of the coastline of England and Wales. It is not surprising that he could not traverse in such detail—though he has actually done it twice—a coastline more than twice as long (if the islands are included) as that of Britain's southern half. But it is invaluable now to have this companion volume to augment one's pleasure on visiting the coast in Scotland, by adding to one's understanding of the geology and physiography. Because the task is so forbidding, it will be many years before anybody else tackles it all in more detail.

RICHARD FITTER

Land Above the Clouds, by Tony Morrison. Deutsch, £3.95

This 'survival special' on South American wildlife is the harvest of a series of expeditions in the Andes ranging from the Caribbean to the Magellan Straits. The title suggests a book dealing only with the Andean highlands, but Mr Morrison does not accept this self-imposed limitation and wanders freely down to the Pacific shores and into the Amazonian jungle. This has

the advantage of illustrating the altitudinal zonation of flora and fauna, perhaps the most fascinating feature of the natural history of the Andes.

So the book takes us across coastal deserts and equally desertic high plateaux, hot steppes and cold steppes, the highest lakes and the great tropical rivers, rain forest and cloud forest, paramos and pampas. The main subject is wildlife but with frequent sallies into archaeology, Amerindian customs and folklore, altitude acclimatisation, zoogeography, palaeontology and some occasionally unorthodox history. This is a lot to cram into 200 pages and some readers may find the book overstuffed; others may enjoy the seemingly inexhaustible torrent of facts and names. There are some striking illustrations in colour.

Mr Morrison's first interest is the mammals and he describes a wide cross-section. This is particularly valuable as most Andean mammals are uncommonly difficult to see. With the birds he is more selective (inevitably so with 1500 species in Colombia alone) but he has good pages on flamingoes, condors, and the species a visitor can expect to see, say, at Titicaca or Santa Marta. Alas, every chapter records declining numbers, species in danger of extinction, and the difficulty of promoting conservation in a continent which traditionally accepts reduction of wilderness and increase of population as twin symbols of progress.

This account may help naturalists wondering which part of the immense cordillera to visit—especially those who, after due warning, wish to explore some of the less accessible regions that have attracted the author.

G. T. CORLEY SMITH

Horses, Asses and Zebras in the Wild, by Colin Groves. David & Charles, £3.50.

The author of this excellent book has experience of equids in the wild (especially of zebras in Africa); he has also diligently viewed them in captivity, investigated the literature, and consulted authorities. The result is an easy-reading assemblage, clearly set out and in reasonable compass, covering the whole field. There are chapters on probable ancestry and related creatures, on feral animals and domestication, and several appendices.

This is a very difficult group. Most authorities disagree on either the broad view or the detail, and there are few attempts to deal with it comprehensively. A pitfall arising from the author's material is that it tends to perpetuate popular mythology in matters of detail and to pay too much uncritical respect to whatever has been written and claimed by anybody else. Some details are trivial, of course. For example: the animal shot by Col. Przewalski himself in the 1870s, from which the species *E. przewalskii* was first described, is instanced as the standard of five characteristics. But it is now known that this animal was immature, that colour varies with age, season and, in certain respects, individuals, and, besides, that it was certainly not Przewalski who shot it. The skin and skull were passed to him by a frontier official who had obtained them from Kirghiz huntsmen, and its exact provenance cannot be known. (Indeed it is quite likely that the nominate discoverer never saw a Przewalski horse alive.) Again, that delightful taxonomic error the *dzigetai* or *djigetai*, reappears as one of two distinct forms of Mongolian wild ass, whereas the word is simply an explorer's misunderstanding of the Mongolian slang term 'long-ears' (applied sometimes to any wild ass, or even wolf). Mongolians—like Russians—use the one Twki word *kulan* or *khulan* for all wild asses.

But *de* such *minimis* the reader should *non curat*. What is perhaps more