millions of persons in Latin America who practice a mixed culture, derived from indigenous Indian, colonial Iberian, and modern European sources.

The semipopular style presumably required of a commercially published report makes for relatively smooth reading, at the expense, however, of the omission of details of method and data which would be of interest to specialists. The latter type of material will doubtless appear in more technical publications.

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Fossil vertebrates from western North America and Mexico. E. L. Furlong, *et al.* (Contributions to Paleontology, Publ. 551.) Washington, D. C.: Carnegie Institution of Washington, 1946. Pp. iv + 195. (Illustrated.) $2.50, paper; $3.00, cloth.

The latest volume of Contributions to Paleontology covers the years 1943–46 and includes eight articles on fossil fishes, birds, and mammals.

Three papers by Lore Rose David, entitled "Use of Fossil Fish Scales in Micropaleontology," "Some Typical Upper Eogene Fish Scales from California," and "Upper Cretaceous Fish Remains From the Western Border of the San Joaquin Valley, California," demonstrate the use of fossil fish scales in stratigraphic correlation and in paleoecology. This author states that it is nearly always possible to recognize families, genera, and often species on the basis of differences in scale sculpture—a point that might be disputed by some ichthyologists. The recognition of characines, for instance, in marine Upper Cretaceous deposits, is of considerable importance if the scale identifications are certain.

"A Review of the Pleistocene Birds of Fossil Lake, Oregon," by Hildegarde Howard, is a well-documented account of all the known bird remains from this rather famous Upper Pleistocene locality. Although there is a general resemblance between the avifauna of this deposit and that now living about the fresh-water lakes of Oregon and California, interesting examples of subspecific differences are present which indicate subdivisions of a chronocline. Unexpected members of the fauna include a flamingo and a jaeger.

The history of the badgers in North America has been greatly clarified by E. Raymond Hall in a contribution entitled "A New Genus of American Pliocene Badger, With Remarks on the Relations of Badgers of the Northern Hemisphere." The new genus, *Pliotaxidea*, is based on skull fragments originally referred to *Taxidea* and a recently discovered skull from Oregon, all of Pliocene age. It is now apparent that the Asiatic and American badgers have been separated since possibly the Upper Miocene, with *Pliotaxidea* close to the *Taxidea* line and *Parataxidea* of the Asiatic Pliocene close to the ancestral stock of *Meles*. There is no evidence of intercontinental migration within this subfamily subsequent to the early Pliocene.

To the nonspecialist, at least, the taxonomy of the North American fossil antilocaprids presents a rather confusing picture. This is due partly to the difficulty of differentiating true taxonomic characters from those associated with age and sex, and this problem is evident in a paper by E. L. Furlong, "The Pleistocene Antelope *Stockeros conklingi* From San Josecito Cave, Mexico." The exact distinction between *Tetrameryx* and *Stockoceros* is not completely clarified, although the author states that "*Stockoceros* is at least subgenerically distinct from *Tetrameryx*." A second contribution by the same author deals with the "Generic Identification of the Pleistocene Antelope From Rancho La Brea." This antilocaprid is removed from the genus *Capromeryx* and is assigned to the new Pleistocene genus *Breameryx* on the basis of apparently distinguishing dental and skull characters. It would appear that the antilocaprids offer a very fertile field for quantitative taxonomic study.

"A Miocene Mammalian Fauna From Beatty Buttes, Oregon" is described by Robert E. Wallace. The assemblage is probably Upper Miocene (Barstovian) and presumably includes grassland and woodland forms such as *Merychippus* and *Dromomeryx*. It is very similar to that found at two other Upper Miocene localities in Oregon, Sucker Creek and Skull Springs.

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Mammals of eastern Asia. G. H. H. Tate. New York: Macmillan, 1947. Pp. xiv + 366. (Illustrated.) $4.00.

The new volume in the Pacific World Series represents exactly the type of handbook that should have been available to the personnel of the U. S. forces in China during the war, and thus exactly the need the series was designed to meet. Dr. Tate was co-author with J. E. Hill and T. D. Carter of *Mammals of the Pacific world*, which described the mammals of the Pacific and Australasian islands, and the two volumes form much the sort of naturalist's Baedeker for which we may hope there will be a continuing demand. The production of such volumes is one of the duties of naturalists and one of their functions that deserves active support.

In a brief introduction the mammals as a zoological group are presented to the nonzoological reader, some account of their adaptations to the conditions of existence are given, and the use of scientific names is explained. A glossary at the end of the book supplements this chapter.

A second general chapter, which is an essay on the geography of eastern Asia, interestingly sets forth one of the two frames of reference of animal geography, namely, the climatically dominated ecological-vegetational matrix in which animals find their most obvious natural associations of range. The reviewer has elsewhere been occupied at length with the subject of ecological animal geography, and it is gratifying to have this kind of introduction to the systematic account of the mammals.

The systematic account occupies 325 pages of the book. This forms a most accessible account of some of the more strikingly unfamiliar types of mammals. The insectivores include the tree shrews (now commonly placed with the primates), the hedgehogs and some of their primitive relatives, and a wealth of moles and shrews; the bats are extremely varied, including both the fruit-eating and insectivorous suborders and six families; the pangolins, or scaly anteaters, are represented by two types; the flying lemur occurs in the more southern parts of the territory considered; the lemurs are represented by the slow lorises; there is a large variety of monkeys; and the gibbons represent the higher tailless apes. The carnivores range from familiar furbearers in Siberia, belonging to well-known American types, to the remarkable