

a richly diversified micro-fauna of mammals in the Upper Jurassic deposits, and a similar fauna in the youngest Cretaceous horizons of Wyoming and Colorado. A monograph, with plates of very high excellence, was devoted by Marsh (1884) to the description of the gigantic Dinocerati, which form a group of fossil Mammalia peculiar to North America. A large number of memoirs by Marsh appeared in successive publications of the *American Journal of Sciences*, and made known the important results of his researches on the interesting faunas of the Far West.

Contemporaneously with Marsh, his indefatigable rival, Cope, also worked at the fossil Mammals of the Western States. Unfortunately these two highly-gifted palæontologists were not on friendly terms, and it frequently happened that their works on special genera and species overlapped. Cope's greatest interests were systematic, and he made several improvements in the classification of the higher Mammals. His two reports on the extinct Vertebrates in New Mexico (1874) and on the Vertebrates of the Tertiary formations in the Western States (1884) contain an extraordinary wealth of new observations. Cope discovered a new fauna in the so-called Puerco formation, the oldest horizon of the American Eocene deposits.

Cope's work comprised the fossil Mammalian remains found in Mexico, Central America, and the West Indies. In Brazil, a Danish geologist, P. W. Lund, discovered and described (1841-45) a diversified fossil Cave Fauna. The wide Pampas in the Argentine, in Uruguay and Paraguay, proved to be a rich field for the remarkable fossil Edentate forms. The osteological characters of the gigantic fossil Sloths found abundantly here and in the Pleistocene deposits of other parts of North and South America have been investigated by Owen, Gervais, D'Alton, Huxley, Flower, Nodot, H. von Meyer, and more recently by H. Burmeister (1864-81), J. Reinhardt (1875), and Florentino Ameghino.

Next to the discoveries of Mammalian faunas in the west of North America, the most important palæontological event of the two last decades of the nineteenth century has been the disclosure made by Florentino Ameghino of a rich Mammalian fauna in the Tertiary rocks of Patagonia. New forms are constantly being added from the inexhaustible fossil localities in the province of Santa Cruz. The fauna is being described entirely by