

destroying, by its noxious properties, all the vegetation.* In like manner the Pusanibio, or "Vinegar River," of Colombia, which rises at the foot of Puracé, an extinct volcano, 7,500 feet above the level of the sea, is strongly impregnated with sulphuric and hydrochloric acids and with oxide of iron. We may easily suppose the waters of such streams to have properties noxious to marine animals, and in this manner the entire absence of marine remains in the ossiferous gypsum may be explained.† There are no pebbles or coarse sand in the gypsum; a circumstance which agrees well with the hypothesis that these beds were precipitated from water holding sulphate of lime in solution, and floating the remains of different animals.

In this formation the relics of about fifty species of quadrupeds, including the genera *Paleotherium* (see fig. 191), *Anoplotherium* (see fig. 190), and others, have been found, all extinct, and nearly four-fifths of them belonging to a division of the order *Pachydermata*, which is now represented by only four living species; namely, three tapirs and the daman of the Cape. With them a few carnivorous animals are associated, among which are the *Hyænodon dasyuroides*, and a species of dog, *Canis Parisiensis*, and a weasel, *Cynodon Parisiensis*. Of the *Rodentia*, are found a squirrel; of the *Insectivora*, a bat; while the *Marsupialia* (an order now confined to America, Australia, and some contiguous islands) are represented by an opossum.

Of birds, about ten species have been ascertained, the skeletons of some of which are entire. None of them are referable to existing species.‡ The same remark applies to the fish, according to MM. Cuvier and Agassiz, as also to the reptiles. Among the last are crocodiles and tortoises of the genera *Emis* and *Trionyx*.

The tribe of land quadrupeds most abundant in this formation is such as now inhabits alluvial plains and marshes, and the banks of rivers and lakes, a class most exposed to suffer by river inundations. Among these were several species of *Paleothere*, a genus before alluded to (p. 210). These were associated with the *Anoplotherium*, a tribe intermediate between pachyderms and ruminants. One of the three divisions of this family was called by Cuvier *Xiphodon* (see fig. 235). Their forms were slender and elegant, and one, named *Xiphodon gracile* (fig. 235), was about the size of the chamois; and Cuvier inferred from the skeleton that it was as light, graceful, and agile as the gazelle.

When the French osteologist declared, in the early part of the present century, that all the fossil quadrupeds of the gypsum of Paris were extinct, the announcement of so startling a fact, on such high authority, created a powerful sensation, and from that time a new impulse was given throughout Europe to the progress of geological investigation. Eminent naturalists, it is true, had long before maintained that the shells

* Leyde Magaz. voor Wetensch Konst en Lett., partie v. cahier i. p. 71. Cited by Rozet, Journ. de Géologie, tom. i. p. 43.

† M. C. Prevost, Submersions Itératives, &c. Note 23.

‡ Cuvier, Oss. Foss., tom. iii. p. 255.