

distribution of animals, based on their anatomy, are among the last and highest acquisitions of Zoological Science; and perhaps no better test could be had of the extent to which a successor of Cuvier may have carried his researches than the degree of modification which he has found himself authorized to propose in the outline of his great predecessor.

The first of these touches the primary division of the Class *Mammalia* Cuvier adopted the ternary distribution of the mammals by our countryman Ray, and by Linnaeus, according to the structure of the locomotive extremities, viz, into those with nails or claws (*Unguiculata*), those with hoofs (*Ungulata*), and those without either, and in which also the hinder limbs are wanting (*Mutica* of Linnaeus, *Cetacea* of Cuvier).

With regard to the pouched quadrupeds, Cuvier, in placing them in a special order which he calls *Marsupialia*, between the *Carnivora* and *Rodentia*, speaks of them as forming, with the regular series of *Unguiculata*, a small collateral series, the different genera of which are connected together by the aggregate of their organization, although in their teeth and in the nature of their regimen, some correspond to the *Carnivora*, others to the *Rodentia*, and others again to the *Edentata*. (*Règne Anim.*, i. 80.) M. de Blainville expanded the idea, and proposed to raise the marsupials, which he calls "Didelphes," to the rank of a subclass, including therein the *Echidna* and *Ornithorhynchus*, but with the remark "On devra peut-être faire des Echidnés, etc., une sousclasse distincte."* The proposed innovation was not based on any new facts discovered in the anatomy of the marsupial or monotrematous animals. Accordingly, it not only failed to gain acceptance, but the idea of the mutual affinity of the marsupials, to the extent to which it had been originally entertained by Cuvier, began to suffer modification in the mind of the originator. Thus, in the 4th volume of the second edition of his great work on the "Ossements Fossiles,"—(1823, p. 258)—we find him proposing to extend the bounds of the Insectivorous tribe of Mammals, as previously defined by him, by the addition of the Insectivorous *Marsupialia*, "for we cannot," Cuvier says, "separate from the shrews, tenrecs, &c., the Opossums, Dasyures, and Perameles, which are allied to the *Insectivora* by characters as numerous and important as those which have induced us to unite them with the other *Marsupialia*." His brother, Frederic Cuvier—(*Dents des Mammifères*, p. xii.)—expresses himself more strongly and with more detail to the same effect. These opinions were met neither by comment nor counterstatement from De Blainville; and they served to encourage other naturalists to modify the system of

* Bulletin des Sciences, par la Société Philomatique de Paris, année 1816, p. 109.