

influence which his anatomical investigations had upon Zoölogy, and how the improvements in classification have contributed to advance comparative anatomy, when he says, in the preface to the "Règne Animal," page vi.: "Je dus donc, et cette obligation me prit un temps considérable, je dus faire marcher de front l'anatomie et la zoologie, les dissections et le classement; chercher dans mes premières remarques sur l'organisation, des distributions meilleures; m'en servir pour arriver à des remarques nouvelles; employer encore ces remarques à perfectionner les distributions; faire sortir enfin de cette fécondation mutuelle des deux sciences l'une par l'autre, un système zoologique propre à servir d'introducteur et de guide dans le champ de l'anatomie, et un corps de doctrine anatomique propre à servir de développement et d'explication au système zoologique."

Without entering into a detailed account of all that was done in this period towards improving the system of Zoölogy, it may suffice to say, that before the first decade of this century had passed, more than twice as many classes as Linnæus adopted had been characterized in this manner. These classes are: the Mollusks, Cirripeds, Crustacea, Arachnids, Annelids, Entozoa, (Intestinal Worms,) Zoophytes, Radiata, Polyps, and Infusoria. Cuvier¹ admitted at first only eight classes, Duméril² nine, Lamarck³ eleven and afterwards fourteen. The Cephalopoda, Gasteropoda, and Acephala, first so named by Cuvier, are in the beginning considered by him as orders only in the class of Mollusks; the Echinoderms also, though for the first time circumscribed by him within their natural limits, constitute only an order of the class of Zoophytes, not to speak of the lowest animals, which, from want of knowledge of their internal structure, still remain in great confusion. In this rapid sketch of the farther subdivisions which the classes Insecta and Worms of Linnæus have undergone under the influence of Cuvier, I have not, of course, alluded to the important contributions made to our knowledge of isolated classes, by special writers, but limited my remarks to the works of those naturalists who have considered the subject upon the most extensive scale.

Thus far, no attempt had been made to combine the classes among themselves into more comprehensive divisions, under a higher point of view, beyond that of dividing the whole animal kingdom into Vertebrata and Invertebrata, a division which corresponds to that of Aristotle, into ζῷα ἔρμια and ζῷα ἄρμια. All efforts were rather directed towards establishing a natural series, from the lowest Infusoria up to Man; which, with many, soon became a favorite tendency, and ended by being presented as a scientific doctrine by Blainville.

¹ CUVIER, (G.) Tableau élémentaire de l'Histoire naturelle des Animaux, Paris, 1798, 1 vol. 8vo.

² DUMÉRIL, (A. M. C.) Zoologie analytique, etc., Paris, 1806, 1 vol. 8vo.

³ LAMARCK, (J. B. DE.) Système des Animaux sans Vertèbres ou Tableau général, etc., Paris, 1801. 1 vol. 8vo. — Histoire naturelle des Animaux sans Vertèbres, etc., Paris, 1815-1822, 7 vols. 8vo.