

ages,¹ added any important information to that already contained in Aristotle; and we must come down to the sixteenth century, before we find authors who have observed *Medusæ* in nature, and given rude outlines of their external appearance. Among them *Bélon* and *Rondelet* deserve particular mention, for they were the first who published wood-cuts representing several species of *Actinæ* and *Acalephæ*; and, though their knowledge of these animals is not more accurate than that of Aristotle, a new era in the natural history of animals begins with them and *Gessner*.

SECTION II.

THE NATURALISTS OF THE SIXTEENTH AND SEVENTEENTH CENTURIES.

The connection between the extraordinary impulse which the natural sciences received in the second half of the sixteenth century, and the preceding momentous

Caii Plini secundi Historiæ Naturalis libri xxxvii. The third part, devoted to Zoölogy, contains notes and dissertations by *G. Cuvier*.

Most of what is contained in *Pliny* respecting the *Acalephs* (*Lib. ix. cap. 45*) is compiled from *Aristotle*, though it appears from his description, that he must have observed these animals himself, as he mentions the manner in which they move about, and seize their prey. As the name *Zoöphytes* has been applied to the lower animals by most writers on natural history since *Pliny*, it is not out of place to mention here, that that word was first used by *Sextus Empiricus*, and no doubt suggested by a passage of *Aristotle* quoted above (note on p. 6), in which the gradation from the higher animals to the plants is alluded to. But, far from constituting a progress in science, that designation introduced only confusion, or at least served to propagate a false impression that there were living beings truly partaking at the same time of the nature of animals and plants. Nothing can be further from the truth than to ascribe such a view to *Aristotle* as his commentators *Gaza* and *Budæus* have done; for, though *Aristotle* alludes to a gradation among animals, and to a sort of transition from them to the plants, which he considers as inanimate, he nowhere regards those animals which are immovable,

like plants, as ambiguous in their character, but everywhere speaks of them as living animals, and alludes to the *Sponges* as plants. These erroneous notions have been entertained for nearly two thousand years, until *Peyssonel* demonstrated the animal nature of the expanded individuals of these so-called *Zoöphytes*, in which some of his predecessors had fancied they saw real flowers.

¹ The readers who may wish for more information respecting the progress of science during this and the following periods, in which the natural history of the *Acalephs* made comparatively less advance than that of other classes, are referred to *G. CUVIER*, *Histoire des sciences naturelles depuis leur origine jusqu'à nos jours*, Paris, 1841–1845, 5 vols. 8vo., and *Histoire des progrès des sciences naturelles depuis 1789 jusqu'à nos jours*, Paris, 1829, 4 vols. 8vo. — *DEBLAINVILLE*, *Histoire des sciences de l'organisation et de leurs progrès*, Paris, 1847, 3 vols. 8vo. — Also, *SIX* *Geschichte und Beurtheilung aller Systeme in der Zoologie nach ihrer Entwicklungsfolge von Aristoteles bis auf die gegenwärtige Zeit*. Nürnberg, 1811, 1 vol. 8vo., and for the middle ages in particular: *POUCHET*, *Histoire des sciences naturelles au moyen age*, Paris, 1853, 1 vol. 8vo.