

dictions are not altogether caused by our imperfect knowledge of the Protista, but in reality by their true nature. Indeed, most Protista present such a confused mixture of several animal and vegetable characteristics, that each investigator may arbitrarily assign them either to the animal or vegetable kingdom. Accordingly as he defines these two kingdoms, and as he looks upon this or that characteristic as determining the animal or vegetable nature, he will assign the individual classes of Protista in one case to the animal and in another to the vegetable kingdom. But this systematic difficulty has become an inextricable knot by the fact that all more recent investigations on the lowest organisms have completely effaced, or at least destroyed, the sharp boundary between the animal and vegetable kingdom which had hitherto existed, and to such a degree that its restoration is possible only by means of a completely artificial definition of the two kingdoms. But this definition could not be made so as to apply to many of the Protista.

For this and other reasons it is, in the mean time, best to exclude the doubtful beings from the animal as well as from the vegetable kingdom, and to comprise them in a third organic kingdom standing midway between the two others. This intermediate kingdom I have established as the *Kingdom of the Primary Creatures* (Protista), when discussing general anatomy in the first volume of my *General Morphology*, p. 191–238. In my *Monograph of the Monera*,<sup>15</sup> I have recently treated of this kingdom, having somewhat changed its limits, and given it a more accurate definition. Of independent classes of the kingdom Protista, we may at present distinguish the following:—