

all animals are equal in the perfection of their organization, might be justified, if it was qualified so as to imply a relative perfection, adapted in all to the end of their special mode of existence. As no one observer has contributed more extensively than Ehrenberg to make known the complicated structure of a host of living beings, which before him were almost universally believed to consist of a simple mass of homogeneous jelly, such a view would naturally be expected of him. But this qualified perfection is not what he means. He does not wish to convey the idea that all animals are equally perfect in their way, for he states distinctly that "Infusoria have the same sum of systems of organs as Man," and the whole of his system is intended to impress emphatically this view. The separation of Man from the animals, not merely as a class but as a still higher division, is especially maintained upon that ground.

The principle of classification adopted by Ehrenberg is purely anatomical; the idea of type is entirely set aside, as is shown by the respective position of his classes. The Myeloneura, it is true, correspond to the branch of Vertebrata, and the Sphygmozoa to the Articulata and Mollusca; but they are not brought together on the ground of the typical plan of their structure, but because the first have a spinal marrow and the other a heart or pulsating vessels with or without articulations of the body. In the division of Tubulata, it is still more evident how the plan of their structure is disregarded, as that section embraces Radiata, (the Echinoidea and the Dimorphæa,) Mollusca, (the Bryozoa,) and Articulata, (the Turbellaria, the Nematoidea, and the Rotatoria,) which are thus combined simply on the ground that they have vessels which do not pulsate, and that their intestine is a simple sac or tube. The Racemifera contain also animals constructed upon different plans, united on account of the peculiar structure of the intestine, which is either forked or radiating, dendritic or racemose.

The limitation of many of the classes proposed by Ehrenberg is quite objectionable, when tested by the principles discussed above. A large proportion of them are, indeed, founded upon ordinal characters only, and not upon class characters. This is particularly evident with the Rotatoria, the Somatotoma, the Turbellaria, the Nematoidea, the Trematodea, and the Complanata, all of which belong to the branch of Articulata. The Tunicata, the Aggregata, the Brachiopoda, and the Bryozoa are also only orders of the class Acephala. Before Echinoderms had been so extensively studied as of late, the separation of the Echinoidea from Asteroidea might have seemed justifiable; at the present day, it is totally inadmissible. Even Leuckart, who considers the Echinoderms as a distinct branch of the animal kingdom, insists upon the necessity of uniting them as a natural group. As to the Dimorphæa, they constitute a natural order of the class Acelephæ, which is generally known by the name of Hydroids.