

CLASSIFICATION.

The simplest beings which are recognised as belonging to the Animal Kingdom, that is to say, all below the CŒLEENTERATA in point of organisation, are by general consent placed together to form the Sub-kingdom PROTOZOA. They possess one character in common, namely, that the body consists of jelly-like protoplasm or sarcode, which, so far as can be ascertained, is either structureless or only specialised in a comparatively rudimentary way. In many of the constituent groups, the skeleton or framework of the animal takes beautifully symmetrical and often complex forms, whilst the sarcode body retains its simplicity, and produces no organ more highly specialised than the nuclei and contractile vacuoles, which may or may not be present in the jelly-like mass.

The Sub-kingdom PROTOZOA is variously treated by different systematists, but the division into three classes,—*Monera*, *Rhizopoda*, and *Infusoria*, commends itself as a good working arrangement. Whether the *Spongida* are more nearly related to the PROTOZOA or the CŒLEENTERATA is a question which need not be considered here.

Classification of the Rhizopoda.

The discovery of the true nature of sarcode organisms is due to the French naturalist Dujardin, by whom they were originally described under the collective name *Symplectomères*¹. In subsequent papers by the same author, preference was given to the term *Rhizopodes*, and this, in its latinised form, has since been almost universally adopted.

Dujardin's earlier researches were published in the year 1835, and the number of forms then recognised as belonging to the group was exceedingly small; but before the appearance of his memoir on the Natural History of Zoophytes,² in 1841, the list had been considerably increased; and, in the classification proposed in that work, the Rhizopoda constitute an independent Family of the Infusoria, which, without intermediate grouping, is divided into eight genera, namely:—

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| 1. <i>Arcella.</i> | 5. <i>Gromia.</i> |
| 2. <i>Diffugia.</i> | 6. <i>Miliola.</i> |
| 3. <i>Trinema.</i> | 7. <i>Cristellaria.</i> |
| 4. <i>Euglypha.</i> | 8. <i>Vorticialis.</i> |

The author, however, appears to have been well aware that the knowledge of such organisms was in its infancy, and he mentions several recent types that he had refrained

¹ *Bullet. Soc. Sci. Nat. France*, 1835, No. 3, p. 36.

² *Histoire Naturelle des Zoophytes.—Infusoires, comprenant la physiologie et la classification de ces animaux, &c.*, p. 240, Paris, 1841.