

SYSTEMATIC PART.

CLASS RADIOLARIA.

- Radiolaria, Johannes Müller, 1858.¹
Rhizopoda radiaria, Johannes Müller, 1858.
Polycystina (*pro parte*), Ehrenberg, 1838.
Echinocystida, Claparède, 1858.
Rhizopoda capsularia, Haeckel, 1861.
Cytophora, Haeckel, 1862.

Definition of the Class:—Rhizopoda with unicellular body, divided by a porous membrane into an internal or intracapsular part (with nucleus), and an external or extracapsular part (with calymma); propagating by flagellated spores.

The RADIOLARIA or CAPSULATE RHIZOPODA, first constituted by Johannes Müller in the year 1858 as a separate group of the Rhizopoda, form a peculiar class of the PROTISTA, or unicellular organisms. This class is exclusively marine, and has in general the characteristic organisation of the Rhizopoda, with the development of numerous *pseudopodia* from the surface of the cell; but it differs from all other Rhizopoda in the possession of a peculiar *membrane*, dividing the cell-body into two different parts; the *central capsule* or the internal part with the *nucleus*, and the external part or *extracapsulum* with the *calymma*; propagation by flagellated spores produced in the central capsule; the sarcode or the *protoplasm* of both parts communicates by fine *pores*, piercing the separating membrane, which is called the *capsule-membrane*.

The *Central Capsule* or the inner part of the Radiolarian body is constantly composed of three essential parts, viz. :—

1. *The Central Nucleus* (a true cell-nucleus).
2. *The Intracapsular Sarcode* (endosarc) or surrounding internal protoplasm.
3. *The Capsule Membrane* or enveloping porous membrane.