

ANIMAL KINGDOM

Classification becomes a necessity when we learning about animal with over million species of animals in animal kingdom. Learning about them become more possible when we systemically classify them and assign them a specific position in the system.

BASIS OF CLASSIFICATION

there are fundamental features common to various individuals in relation to the arrangement of cells, body symmetry, nature of coelom, patterns of digestive, circulatory or reproductive systems.

Levels of Organisation

the cells performing the same function are arranged into tissues, hence is called tissue level of organisation. In sponges, the cells are arranged as loose cell aggregates, i.e., they exhibit cellular level of organisation.

Diploblastic and Triploblastic Organisation

Animals in which the cells are arranged in two embryonic layers, an external ectoderm and an internal endoderm, are called diploblastic animals, e.g., coelenterates.

Those animals in which the developing embryo has a third germinal layer, mesoderm, in between the ectoderm and endoderm, are called triploblastic animals.

The body cavity, which is lined by mesoderm is called coelom.

In some animals, the body cavity is not lined by mesoderm, instead, the mesoderm is present as scattered pouches in between the ectoderm and endoderm Such a body cavity is called pseudocoelom and the animals possessing them are called pseudocoelomates.

In some animals, the body is externally and internally divided into segments with a serial repetition of at least some organs. For example, in earthworm, the body shows this pattern called metameric segmentation and the phenomenon is known as metamerism.

Notochord is a mesodermally derived rod-like structure formed on the dorsal side during embryonic development in some animals. Animals with notochord are called chordates and those animals which do not form this structure are called non-chordates, e.g., porifera to echinoderms.