

Semester - I

Subject - Zoology

Course - Major - I

Question: Describe characters of Phylum

Annelida.

Answer: Annelida (Gr. Annulus, ring, eidos = form)

Lamarck established phylum Annelida in 1801. He gave the term Annelida.

The phylum annelida includes 9,000 sps.

General characteristics

(1) Habitat: Annelids occur in fresh water, marine water and moist soil. Some are free living, some are burrowing and some are parasitic.

(2) Metameric Segmentation: The annelids are characterized by metameric

segmentation, viz - the body is divided externally by ring like grooves (the annuli) and internally by transverse septa.

The segments are called metamers. The first segment is called peristome.

An outgrowth known as prostomium arises from peristome.

(3) Setae and parapodia :- Except ⁽²⁾ leeches, unjointed Schistinos setae are often present. Some annelids such as Nereis have unjointed, locomotory structures, the parapodia (para = parallel, podia = feet).

(4) Body wall :- The body wall consists of thin and moist non-cellular, cuticle, single layer epidermis and circular and longitudinal muscles.

(5) Coelom (Body cavity) :- A true coelom is present. From evolution point of view, annelids are perhaps, the first animals to have a true schizocoelic coelom. In most annelids coelom is divided by septa into compartments. The coelom is filled with coelomic fluid which contains cells. The coelomic fluid works as a hydro-skeleton.

(6) Digestive Tract :- It is complete

(7) Respiratory Organs :- Exchange of gases usually occurs through the skin cutaneous respiration. In some annelids gaseous exchange also occurs through gills known as branchial respiration.

⑧ Blood Vascular system :- It is usually closed type. Blood is red due to presence of respiratory pigment haemoglobin or erythrocyuonin, bound dissolved in blood plasma.

⑨ Excretory System :- It consists of coiled tubular structures known as nephridia, which help in osmoregulation and excretion. Ammonia is chief excretory waste.

⑩ Nervous System :- It consists of nerve rings and solid, double mid-ventral nerve cord with ganglia. A ganglion is an aggregation of nerve cells.

(11) Sexes :- Both unisexual (e.g. Neries) and bisexual (e.g. Earthworm, Leech) forms are found.

⑫ Development :- It is mostly direct.

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