Lab7

Kingdom: Animal

1- All members of Animalia are eukaryotic and multicellular, and all are heterotrophs (that is, they rely directly or indirectly on other organisms for their nourishment). Most ingest food and digest it in an internal cavity.

2- Animals with backbones are called vertebrates but the animals without backbones are called invertebrates.

3- Animals reproduction can be a sexual by means of differentiated eggs and sperm most animals are diploid meaning that cells of adults contain two copies of the genetic material or reproduce Asexual , ex: Hydra

It can reproductive with both ways.

4- Animal Kingdom is classified into nine phylum, Vertebrates animal belong to one phylum & invertebrates belong to eight phylum.

The phylum of Animal Kingdom:

Phylum Porifera

Porifera means organisms with holes. They are commonly known as Sponges. Features of the poriferan are:

1. Non-motile, multicellular organisms with a hard outer skeleton.
2. Have a body with pores.
3. Pores on the bodies create a canal system which helps in the circulation of substances.

4. Not differentiated into head and tail; do not have a well-developed organ or organ system.
5. Include marine habitat.
6. Body symmetry: asymmetric
7. Examples of phylum Porifera include- Spongilla, Sycon.

Phylum Coelenterata (Cnidaria)

The term Coelenteratais derived from the Greek word “kilos” which means hollow-bellied. Their features are:

1. Have a hollow body cavity.
2. The body is differentiated into two ends.
3. Includes all aquatic animals.
4. The body is made of two layers of cells: inner and outer linings.
5. Live in colonies (corals) as well as solitary (hydra).
6. body symmetry: radial

Phylum Platyhelminthes

Platyhelminthes are commonly known as flatworms. Their features are:

1. Dorsoventrally flattened body.
2. Complex and have differentiated body structure.
3. Tissues are differentiated from three layers of cells and are triploblastic.

4. Do not have a true internal cavity or coelom.
5. Have bilateral symmetry.
6. Either free-living (Planaria) or parasitic (liver flukes).

Examples of phylum Platyhelminthes include -Tapeworm, Planaria

Phylum Nematoda

consists of nematodes or roundworms. Their features are:

1. Nematodes have a cylindrical body.
2. Bilaterally symmetrical and triploblastic.
3. Have pseudocoelom, a false body cavity.
4. Parasitic and causes diseases such as elephantiasis, ascariasis.
5. Examples of phylum Nematoda include – Ascaris, Wuchereria

phylum Annelida

are commonly known as segmented or ringed worms. They have the following features:

1. Have a segmented cylindrical body.
2. The body is differentiated into head and tail.
3. Bilaterally symmetrical and triploblastic.
4. Have a true body cavity.
5. Habitat: marine, freshwater and land.

Examples of phylum Annelida include – Earthworm, Leech.

Phylum Mollusca

consists of a large group of animals. Features are:

1. Bilaterally symmetrical and triploblastic.
2. Less segmented body.
3. Well-developed organ and organ system.
4. Typically, open circulatory system.
5. Limbs are present.
6. Examples of phylum Mollusca include- Snails and octopus.

Phylum Arthropoda

means jointed legs. Animals which have jointed appendages belong to this phylum. This is the largest phylum in the animal kingdom. Other features are:

1. They are bilaterally symmetrical.
2. Have jointed appendages, exoskeleton and a segmented body.
3. Have well-differentiated organ and organ system.
4. Have an open circulatory system, but do not have differentiated blood vessels.
5. Examples of phylum include – Spiders, butterflies, and mosquitoes.

Phylum Echinodermata

The term Echinodermata is derived from the Greek words, *echinos* meaning hedgehog and *derma* meaning skin. Thus, echinoderms are spiny-skinned animals.

1. Radial symmetry and triploblastic.
2. Have true coelom.
3. Have hard calcium carbonate skeleton structure.
4. Free-living marine animals.
5. Examples of phylum Echinodermata include- Sea urchins, starfish.

Phylum Chordata

The Chordates possess the following characteristics:

1. They are bilaterally symmetrical, triploblastic with an organ-system level of classification.
2. They possess a notochord and a nerve cord.
3. The circulatory system is closed type.

Phylum Chordata is classified into three subphyla,

A- Urochordata (tunicates)

B- Cephalochordata (lancelets)

C-Vertebrata (vertebrates).