

04-08-2020

Dr. Anish Verma : Assistant professor and head, UG. Department of Zoology, D.K. College, Dumraon (Bihar), Notes for BSc part I, paper I (A)

Ques: Mollusca ko classify karay hue Sachin vachan karay.

Ans: Classification of Phylum - Mollusca :-

Phylum Mollusca are divided into six classes :-

Class 1. Monoplacophora (with many one plate, phosin - bearing)

The shell is spoon or cup shaped. They have the characters of both the phylum Annelida and phylum Mollusca.

Example:

Neopilina.

Class 2. Amphineura (Gk. amphi - both; two neuron = nerve)

there is a present non-ganglionated nerve ring around mouth with two pairs of interconnected nerve cord.

Examples:-

Chactopleura (Chiton.)

Class 3. Scaphopoda (Gk. Scapha - boat; podos - foot).

Shell is tubular and open at both ends.

Example:

Dentalium.

Class 4. Crustacea (Gk. krateo - to carry; podos - foot)

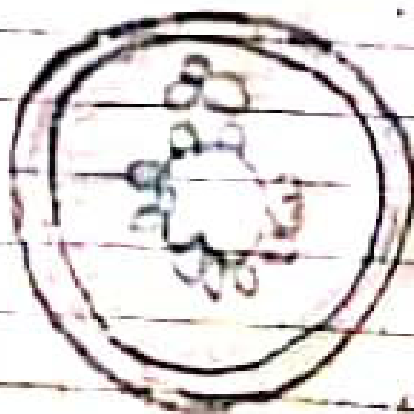
Shell is made up of one piece.

The early embryo is symmetrical but during development the body twists showing torsion so that the body becomes asymmetrical. It includes the largest number of molluscs eg. Pila, Unax, Cypraea (Cockle), Halix (golden snail), Aplysia (Sea hare), Urosalpinx (Sea lemon), Limnaea (pond snail), Planorbis, Patella (true limpet), Turbinella (Shankh), Crepidula (sea butterfly).

Evolutionary Precursor of Molluscs:-

A living fossil" named Neopilina discovered in 1952 from the Pacific Ocean. Shows metameric segmentation which is not characteristic of molluscs. Neopilina has 8 pairs of muscles, 5 or 6 pairs of gills and 5 pairs of nephridia.

Metameric Segmentation and presence of the trochophore larva in both annelids and molluscs suggest that molluscs have descended from the annelids. Thus the annelids are evolutionary precursors of molluscs. Neopilina is a connecting link between Annelids and molluscs.

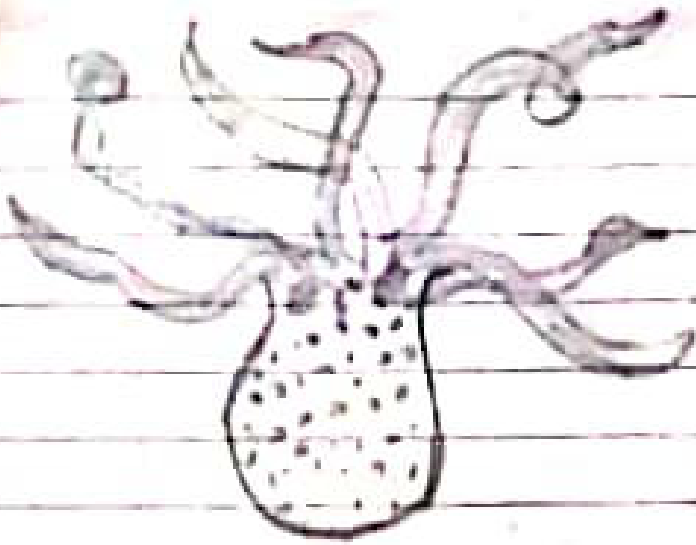


Neopilina in ventral view



Unio

Unio siphon



Octopus



3p Sepia



Chiton



Dentalium