

Locomotion in Paramecium

Bse Part - I Zoology (H)

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Paramecium progresses by the following two methods:—

1) Ciliary movement.

2) Body contraction or metaboly.

1) Ciliary movement :- Cilia are the main locomotory organelle in paramecium. These are fine, hair like protoplasmic processes which ensheath the entire body. The cilia are usually inclined backward and their beating drives the body forward. But they may be directed forward and

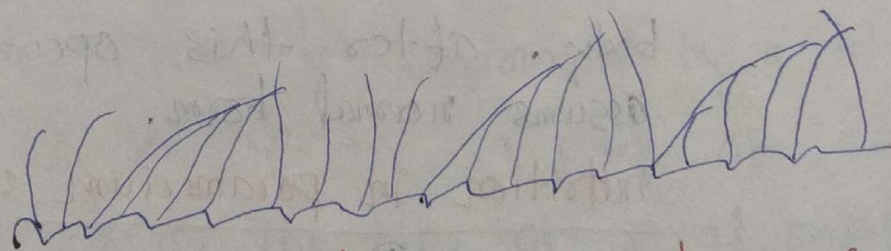


Fig - illustration of metachronous movement in a single row of cilia.

then their stroke pushes the body backward. The oscillation of all the cilia on the body is neither

Simultaneous nor independent but the cilia of a longitudinal row oscillate in such a way that a cilium in front is slightly in advance of the cilium. The movement of cilia is controlled by the neuromotor system.

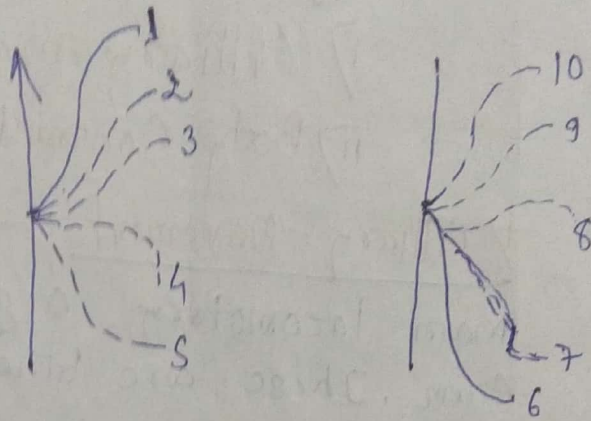


Fig: - Two stages in ciliary movement
a. Effective movement b. Recovery movement

Body Contraction or metaboly :-

Paramecium can pass through a passage narrower than its body by the contraction and twisting of the body. After this operation the body assumes normal form.

nutrition in paramecium :-

Paramecium exhibits holozoic or animal like mode of nutrition. The processes consists chiefly of bacteria algae diatoms, yeasts and other small protozoans. The food is digested at a definite spot. Cell mouth or cytostome. A current of water is produced by the constant lashing movement of cilia of oral groove.