## Phylum: Ciliophora:

## Characteristics of Ciliophora:

1. They are either freeliving in freshwater, e.g., Paramecium sp., Vorticella sp. and or parasitic in host's body, e.g., Balantidium coli and Opalina sp.
2. Body takes different and complex forms, contains a micronucleus its role is reproduction and a macronucleus that performs other cellular functions, contractile vacuoles and other organelles.
3. Movement is by cilia.
4. Lifecycle includes asexually (by binary fission) and sexually stages(by conjugation).

Kingdom : Protista Subkingdom: Protozoa
Phylum: Ciliophora
Class: Oligohymenophorea
Order: Peniculida
Family: Parameciidae

## Paramecium sp.:

1) Freeliving ciliated protozoa, lives in fresh water ponds and streams.
2) Body is oval-shaped, equally covered with simple cilia, a deep oral groove is found.
3) Reproduction is asexually by binary fission or sexually by conjugation.

## Order: Peritrichia

Family:Vorticellidae
Vorticella sp.:

1) Freeliving ciliated protozoa, lives in fresh water ponds and streams.
2) Body is inverted bell-shaped, consisted of disk and stalk, only the disk is covered with (adoral area). Each cell has a separate stalk reached to the substrate surface.
3 ) Reproduction is asexually by budding or sexually by conjugation.

Class: Oplalinea
Order:Opaliida
Family: Opalinidae
Opalina sp.:

1) Parasitic or commensal ciliated protozoa, lives in the rectum of frog.
2) Body is leaf like, covered with nearly equal flagelliform cilia. It has many nuclei. It is without a mouth (Cytostome) and contractile vacuoles.
3) Reproduction is asexually by binary fission or sexually by gametes formation.

