

Aquatic Invertebrate

LAB (1)

Phylum: protozoa (protista)

1-Sub phylum: Sarcomastigophora

Class: Cryptophyceae

Order: Cryptomonadina

Genus: *Chilomonas*

2-Sub phylum: Ciliophora

A-Class: Gymnostomatea

Order: Pleurostomatida

Genus: *Litonotus*

B-Class: Heterotrichea

Order: Heterotrichida

Genus: *stentor*

3- Sub phylum: Ochrophyta

A-Class: Antinochrysothecae

Order: Actinophryida

Genus: *Actinosphaerium*

B-Class: Granuloreticulosea

Order: Foraminiferida

Genus: *Globigerina*

4-Sub phylum: Bryozoa

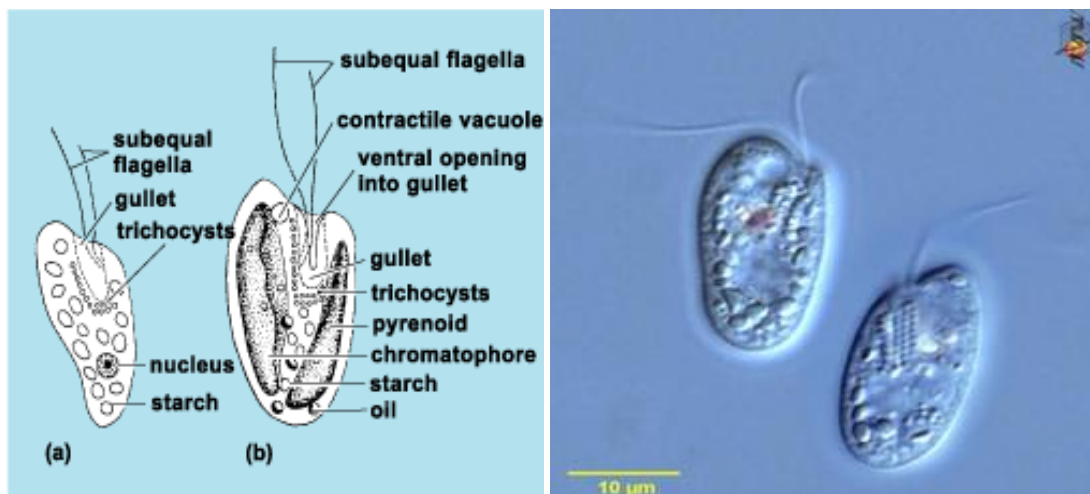
Class: Gymnolaemata

Order: Cheilostomata

Genus: *Bugula*

Genus: *Chilomonas*

- Unicellular organism
- The apex is shifted to the left side
- Two equal flagella for locomotion
- One nucleus in the posterior part
- Cytoplasm includes pyrenoid and starch
- One contractile vacuole is found in the apex of the cell (for regulation of osmotic pressure)



Chilomonas

Genus: *Litonotus*

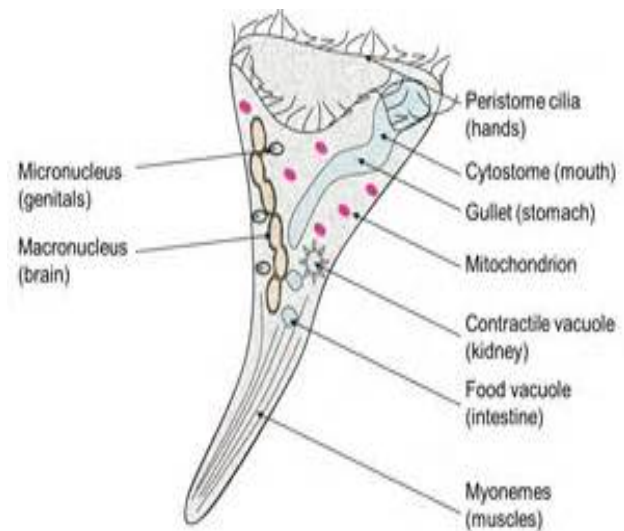
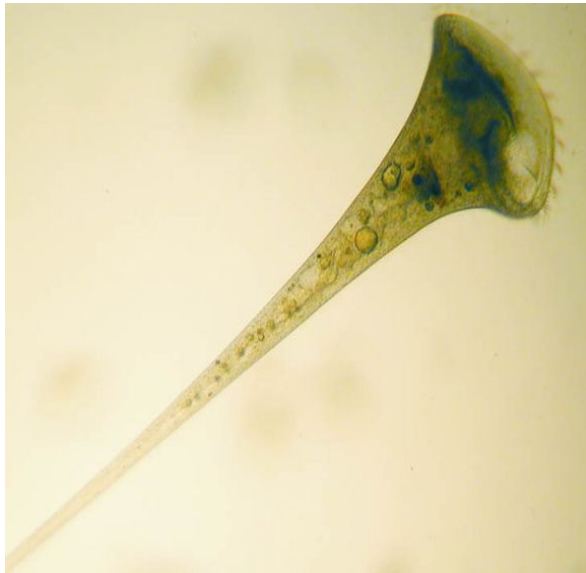
- Predatory ciliate
- Highly elongated body with anterior neck
- Mouth located along the anterior margin
- Macronucleus commonly in two spherical parts with single micronucleus between the two
- One to several contractile vacuoles in the posterior part



Litonotus

Genus: *stentor*

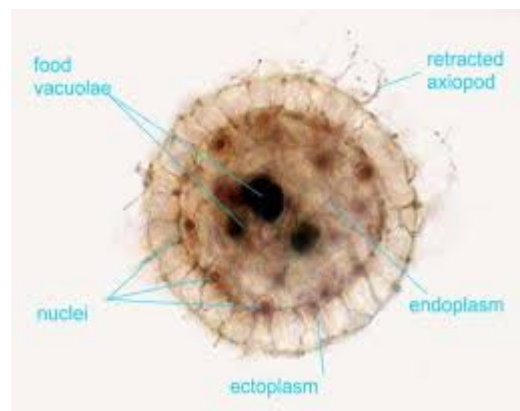
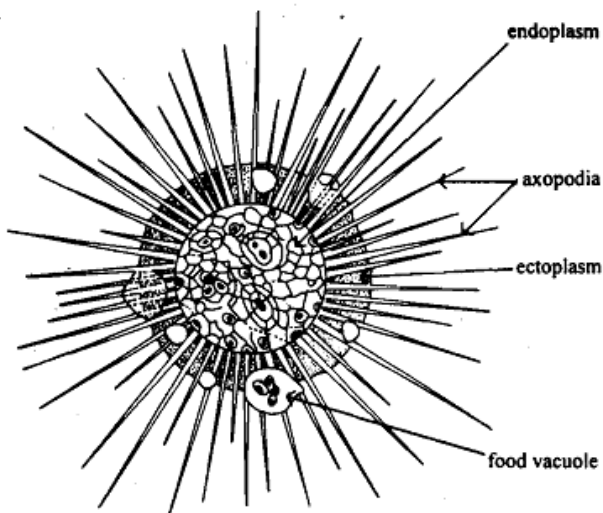
- Rapid contractile body with trumpet shaped
- Pristome wide with adomed central area
- Macronucleus moniliform with 10-20 beads
- Multiple ciliary membranelles spiraling around the region that leads to the mouth ,it uses these cilia to sweep food particles into its cytostome.
- Usually attach to substrates by posterior thin stalk



stentor

Genus: *Actinosphaerium*

- Spherical body with many pseudopods called axopodia
(to capturing prey and protection from predators)
- Axopodia end in the inner zone of ectoplasm
- Ectoplasm consists large vacuoles in one or several layers for floatting
- Endoplasm with numerous small vacuoles and nuclei



Actinosphaerium

Genus: *Globigerina*

- Globose chambers
- Having rounded shell with pores
- Shell made of calcareous with numerous spiny process

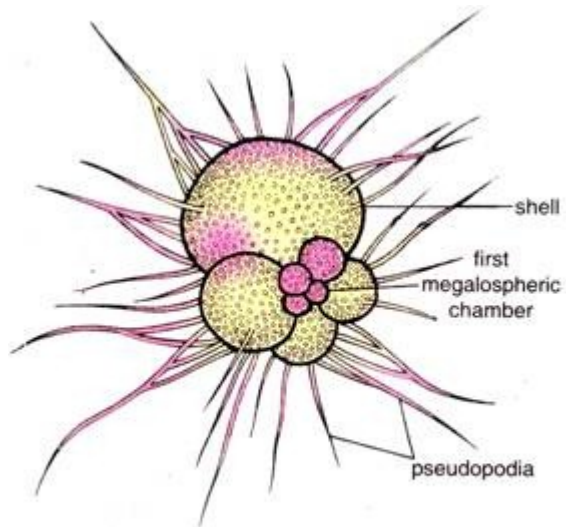


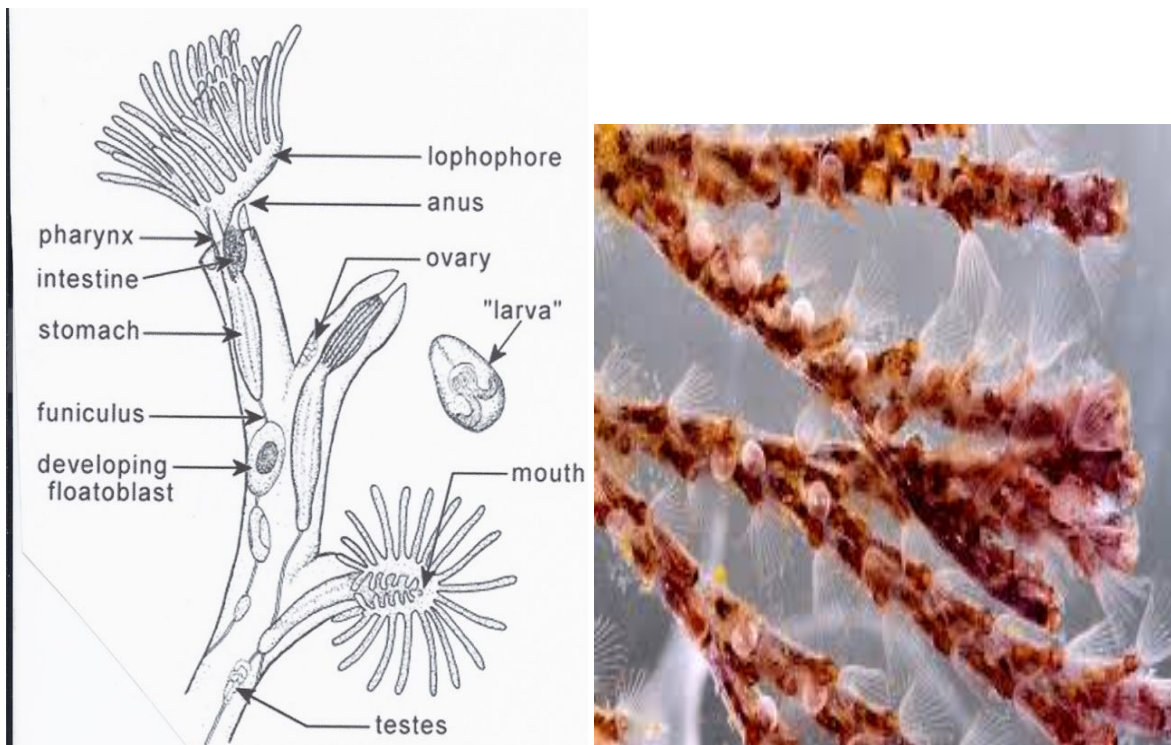
Fig. 22.18. *Globigerina*.



Globigerina

Genus: *Bugula*

- Flexible bushy branching colonies reddish or brown in colour
- The individuals in colony are called zooids (white and globular)
- Zooids consist of soft parts called the polypide enclosed in a rigid box called the zooecium



Bugula