

## Aquatic Invertebrate

### LAB (2)

#### Super phylum: Aschelminthes

Phylum : Rotifera (rota :wheel , fera :to bear)

A-Class:Digononta

Order: Bdelloidea

Family: Philonidinidae

e.x. *Philodina sp.*

B-Class:Monogononta

1-Order: Ploima

Family: Brachionidae

e.x. *Brachionus sp.*

2- Order: Flosculariacea

Family: Filiniidae

e.x. *Filinia longiseta*

3- Order: collothecacea

Family: collothecidae

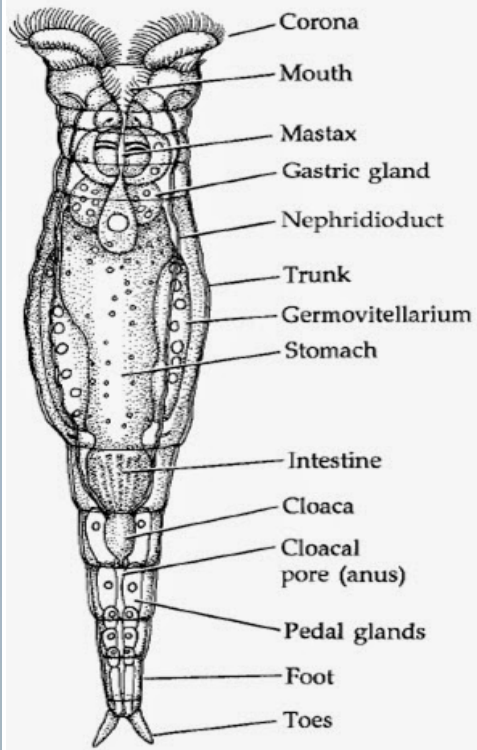
e.x. *Collotheca sp.*

## General characteristics of Rotifera

- Triploblastic ( ectoderm , mesoderm , endoderm )
- Bilateral symmetrical ( both sides of the body are the same )
- Pseudocoelomate (has a body cavity but it is not lined by mesoderm)
- Unsegmented body consist of three part head, trunk and foot
- The head carries the rotator ciliated organ called **corona** ( for locomotion and feeding) and Posterior end with toes
- Complete digestive system (with mouth and anus)
- Pharynx equipped with movable chitinous jaws (**mastax**) to grind ingested food particles into smaller
- body covering with an external flexible thick cuticle layer called (**lorica**) for protection
- Osmoregulation through Protonephridia
- Parthenogenesis common – reproduction from unfertilized eggs
- Respiratory and circulatory system are absent
- Nervous system has circular brain and paired of longitudinal nerve cords

### **A-Class: Digononta**

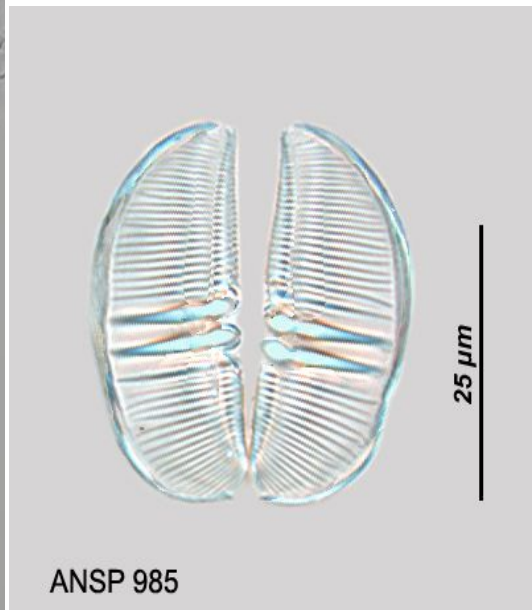
- Free swimming
- Paired ovaries in female
- Foot with two toes (forked tail)
- Corona with two circular lobes with cilia
- Mastax ramate
- No lorica
- Parthenogenetic only



***Philodina* sp.**



***Philodina* sp.(head )**



**mastax**

## **B-Class: Monogononta**

- Free swimming or sessil
- Single ovary in female
- Foot present or absent – toes variable
- Corona usually a single ciliated disk
- Mastax not ramate
- Lorica present or absent
- Mostly dioecious males are usually small

### **e.x. *Brachionus* sp.**

- Free swimming
- Short and broad shape
- corona bear spines surrounding anterior end to captured prey



***Brachionus* sp.**

**e.x. *Collotheca* sp.**

- sessil singly or colonies to substrate
- long with funnel shape
- Very large corona with cilia

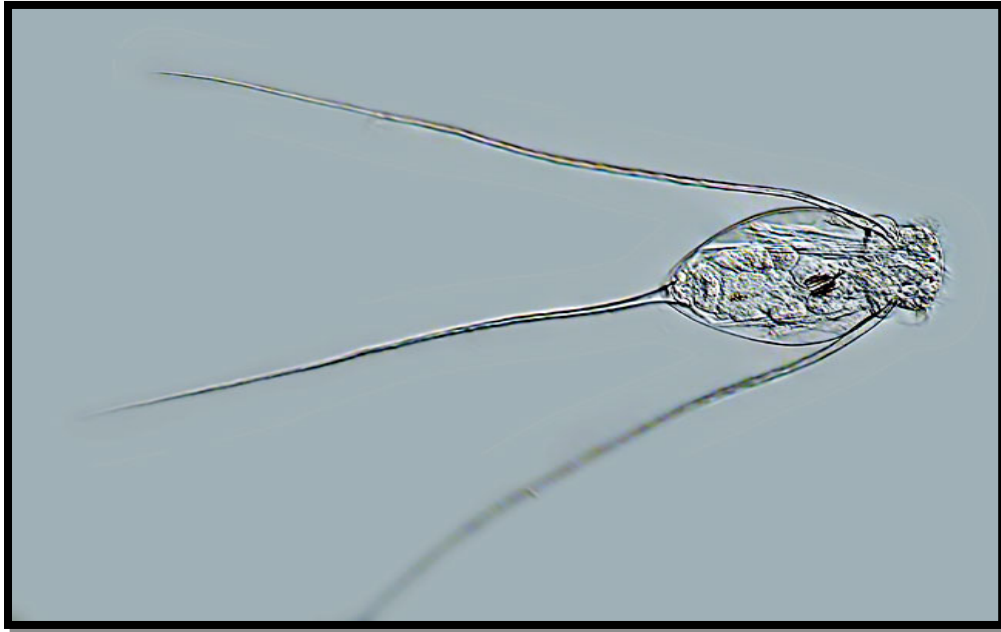


***Collotheca* sp.**

**e.x. *Filinia longiseta***

- Free swimming
- lack foot and toes
- Bears two lateral bristles and caudal bristle for swimming

*Filinia*



*longiseta*