**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.**

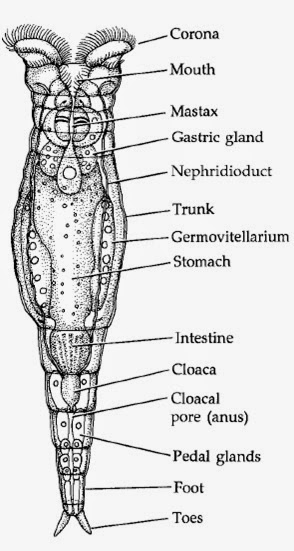
General characteristics of Rotifera

**-**Triploblastic ( ectoderm , mesoderm , endoderm )

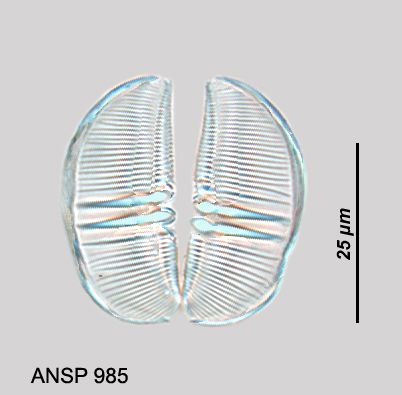
* Bilateral symmetrical ( both sides of the body are the same )
* Pseudocoelomate (has a body cavity but it is not lined by mesoderm)
* Unsegmented body consist of three part head,trunk and foot
* The head carries the rotator ciliated organ called **corona** ( for locomotion and feeding) and Posterior end with toes
* Complete digestive system (with mouth and anus)
* Pharynx equipped with movable chitinous jaws (**mastax**)to grind ingested food particles in to 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

[](http://www.google.iq/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjl48DL1pLSAhWGQBoKHZOLA2AQjRwIBw&url=http://cfb.unh.edu/cfbkey/html/Organisms/PRotifera/GCollotheca/collotheca_pelagica/collothecapelagica.html&psig=AFQjCNF152Q73BsEHyhcm0o0ksk981iBow&ust=1487267468134933)

***Collotheca* sp.**

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

- Free swimming

- lack foot and toes

- Bears two lateral bristles and caudal bristle for swimming



***Filinia longiseta***