

Phylum-Annelida

Nereis

Classification :

Kingdom.....Animalia

Phylum Annelida

Class.....Polychaeta

Genus*Nereis* (Rag worm or Clam worm)

Habit and habitat :

Nereis is a marine crawling type, living in temporary burrows in sand. They are free-living, predaceous, nocturnal, carnivorous.

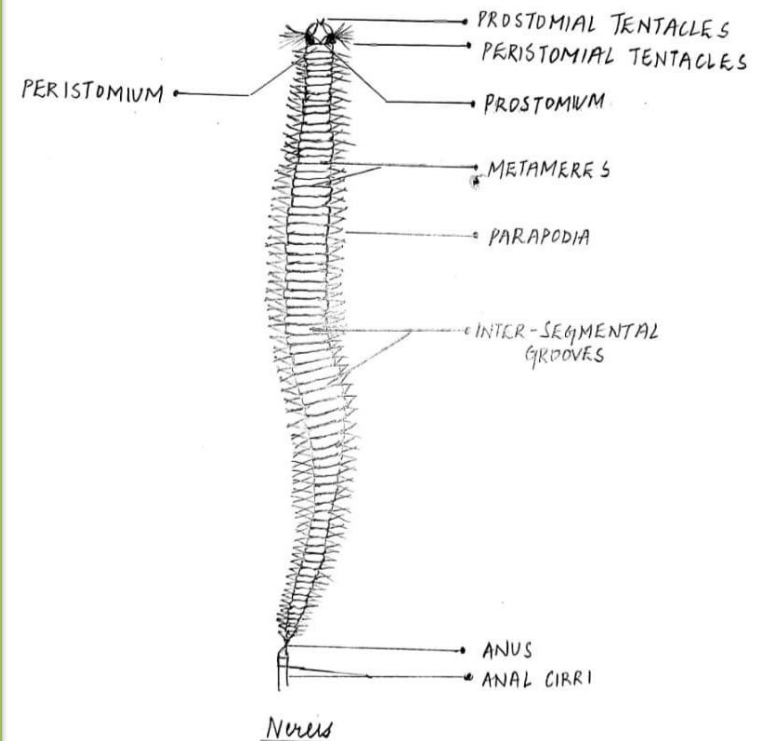
Distribution :

It has cosmopolitan distribution found along the North Atlantic coast, Pacific coast, U.S.A. and Europe.



Comments :

- Commonly called as Rag worm or Clam worm.
- *Nereis* specimen shows cylindrical and elongated body form which is divided into similar metameres or segments about 200 in number.
- Mouth is found on the anterior surface of the peristomium.
- Body segments, except head and anal segment, contain each pair of locomotory parapodia.
- Segments are also called as metameres and between two segments in intersegmental groove.
- Anal segment contains a pair or anal cirri.
- *Nereis* is dioecious, although male and female worms can hardly be recognized.



Heteronereis

Classification :

Kingdom.....Animalia
Phylum Annelida
Class.....Polychaeta
Genus*Heteronereis*

Habit and habitat :

Heteronereis is a free-swimming worm found in sea.

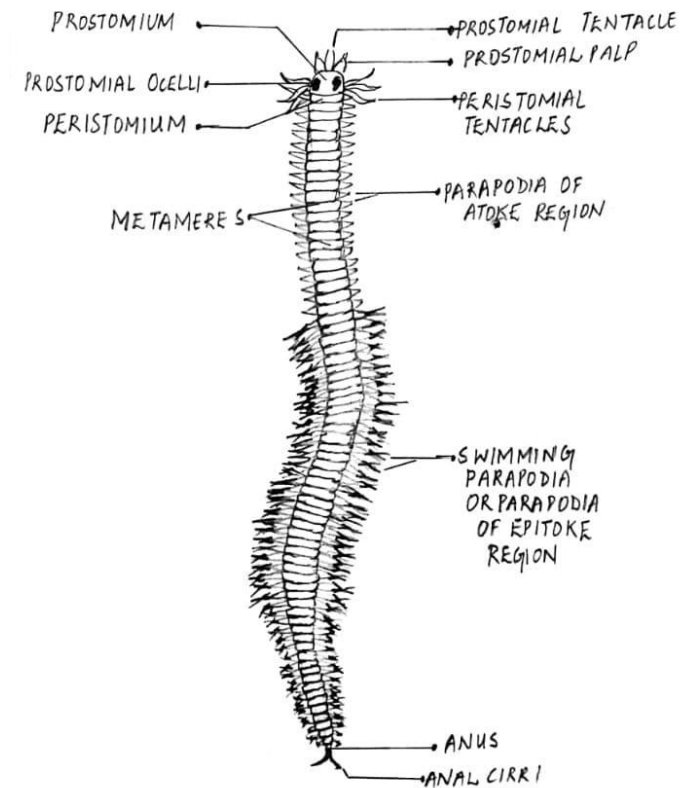
Distribution:

It has cosmopolitan distribution found along the North Atlantic coast, Pacific coast, U.S.A. and Europe



Comments :

- *Heteronereis* is the sexual phase of *Nereis* in which marked modifications occur in the posterior segments of the body which contain gonads.
- During breeding season, clam worm leaves its tube and becomes free-swimming.
- Body is differentiated into asexual anterior atoke and a posterior sexual epitoke which contains gametes.
- Prostomium contains prostomial tentacle, prostomial ocelli and prostomial palp. Peristomium contains peristomial tentacles.
- Muscles and alimentary canal are reduced or become degenerated due to large development of gonads.
- There is no marked sexual dimorphism in both sexes but the females tend to become orange or reddish.



Heteronereis

Aphrodite

Classification :

Kingdom.....Animalia

Phylum Annelida

Class.....Polychaeta

Genus.....*Aphrodite*

Habit and habitat :

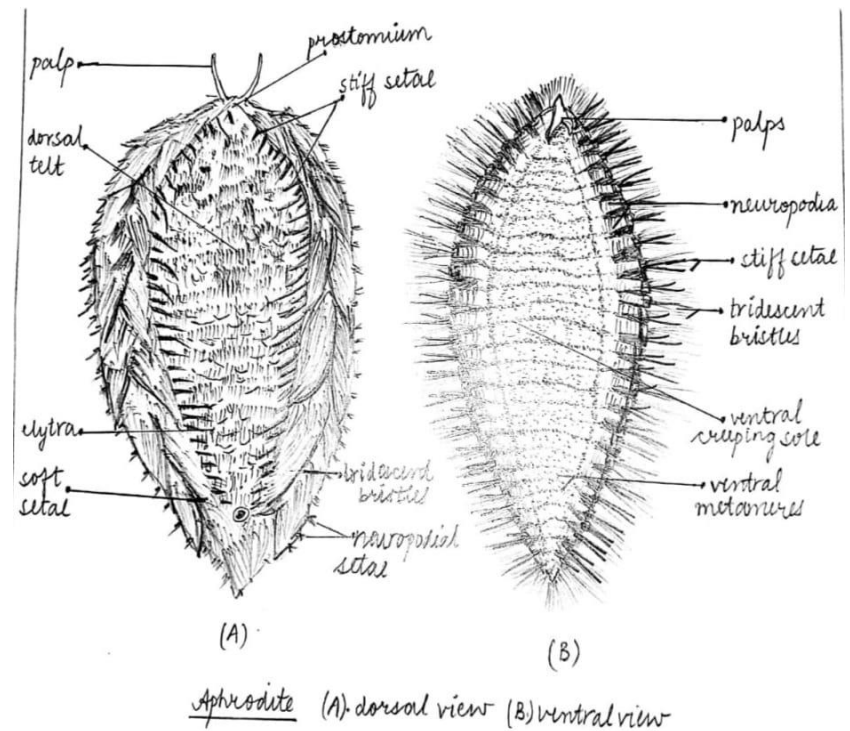
Aphrodite is marine worm inhabiting the deep water muddy bottoms

Distribution : It is found in U.S.A.



Comments :

- Commonly called as sea mouse measuring approximately 12 cm in length and made up of 30 to 35 segments.
- Shape of the animal is oval, and dorsoventrally flattened. The dorsal surface is convex and is covered with setae of different kinds.
- Body is covered dorsally by felt-like or blanket-like setae arising from the notopodium.
- Anterior end contains a small head or prostomium, bearing a small median tentacle and 2 lateral palps. Anus is dorsally situated at the more pointed posterior extremity.
- Ventral surface is flat, segmented and forming a creeping sole. Each ventral segment or metamere contains stiff setae.
- Pumping action of the dorsal body wall causes the sea water to be filtered through the dorsal felt into the space below.



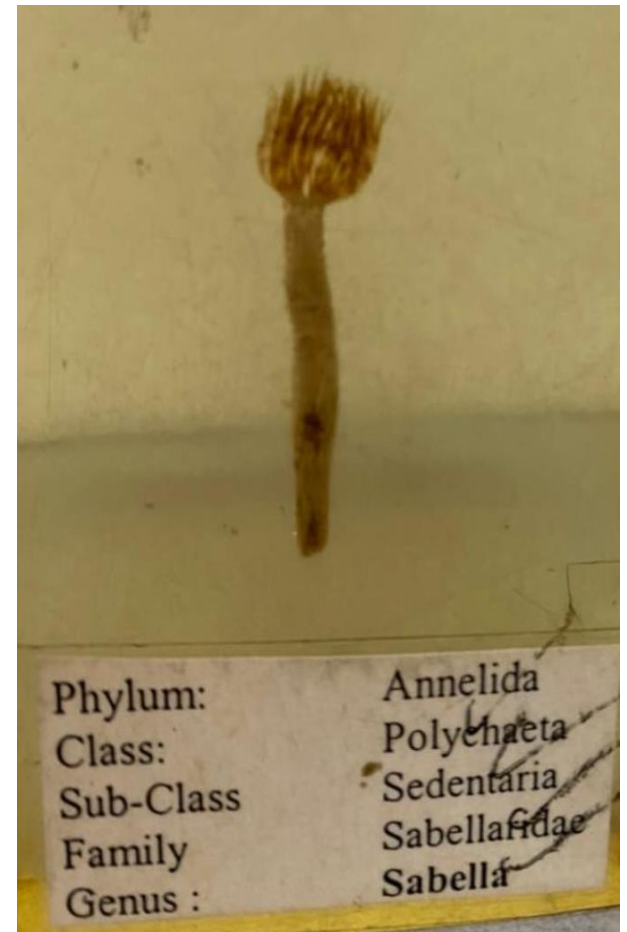
Sabella

Classification :

Kingdom.....Animalia
Phylum Annelida
Class Polychaeta
Genus*Sabella*

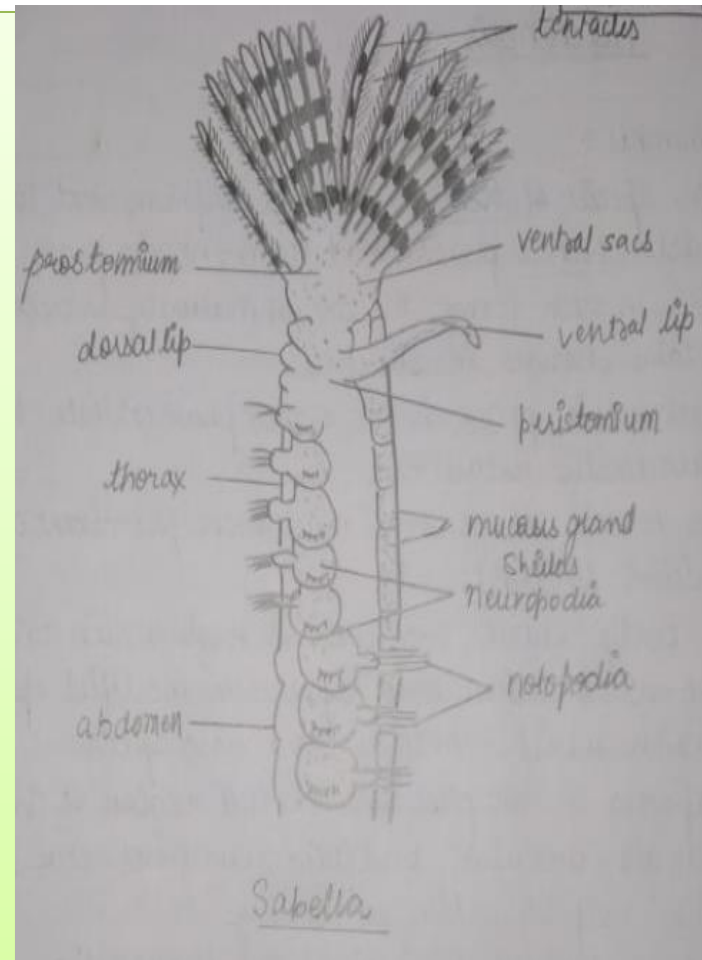
Habit and habitat : *Sabella* is a marine, tubicolous polychaete present in low tide mark to approximately 100 fathoms deep. It is often incrustated on oyster shells, etc.

Distribution: It is distributed throughout the world but especially U.S.A.



Comments :

- Commonly called as 'peacock worm'
- Animal lives in upright tube, made up of sand grains glued together.
- Body is divided into small head, a trunk and abdomen.
- Head is constituted by the prostomium, which contains several gill filaments. Each tentacle has 2 rows of small pinnules having mucus-secreting glands.
- Abdomen is the largest part.
- A dorsal faecal groove extends ventral side from mouth to anus. It curves down in the last trunk segment to ventral side.



Serpula

Classification :

Kingdom.....Animalia

Phylum Annelida

Class Polychaeta

Genus *Serpula*

Habit and habitat :

Serpula lives in a hard, shelly, calcareous and twisted tube, attached to shells and other marine objects.

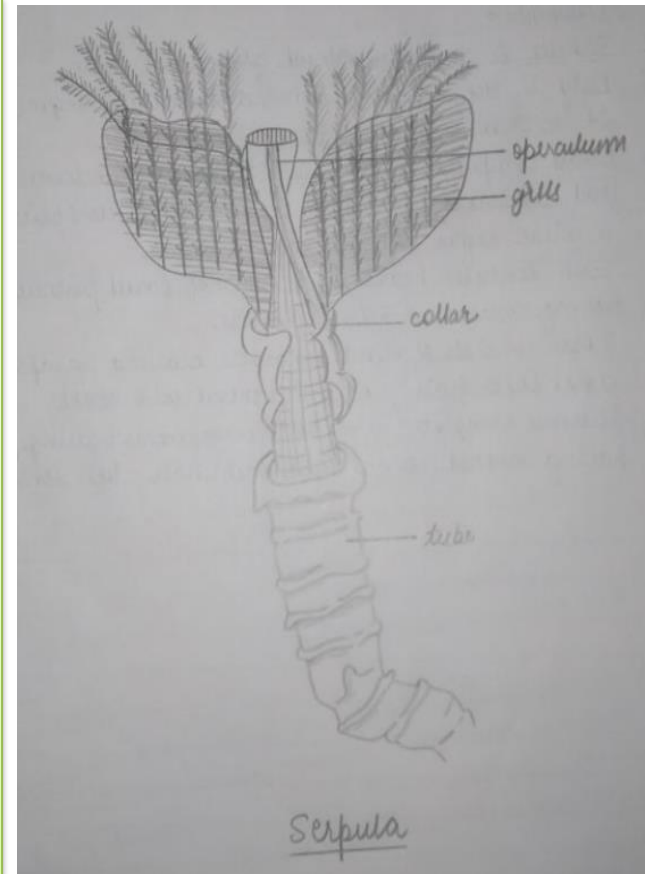
Distribution:

It is found in Europe and U.S.A



Comments :

- Body is elongated and cylindrical but contractile.
- Anterior end forms head consisting of prostomium and peristomium.
- Posterior end remains attached with mass of calcareous tubes.
- Prostomium contains a pair of incomplete cirrlets of feathered gills or branchian which are elongated and pinnately branched.
- Gills are modified palps, sometimes supported by cartilaginous skeleton and are richly supplied with blood and besides respiration serve to collect microscopic food particles.
- Each gill consists of an elongated branch, having two rows of short filaments.
- Peristome is extended forward as paired membrane to form a collar which is employed in smoothing the inside of the shell.



Pheretima : Earthworm

Classification :

Kingdom.....Animalia

Phylum..... Annelida

ClassOligochaeta

Genus*Pheretima*

Habit and habitat :

Pheretima is found in the soil but absent in sandy and humus deficient soil. They live usually in the upper layers of slightly damp soils, lawns, gardens and up to the depth of 30 to 45 cm in burrows for protection against enemies and under unfavourable condition. The earthworm is hermaphroditic (monoecious) .

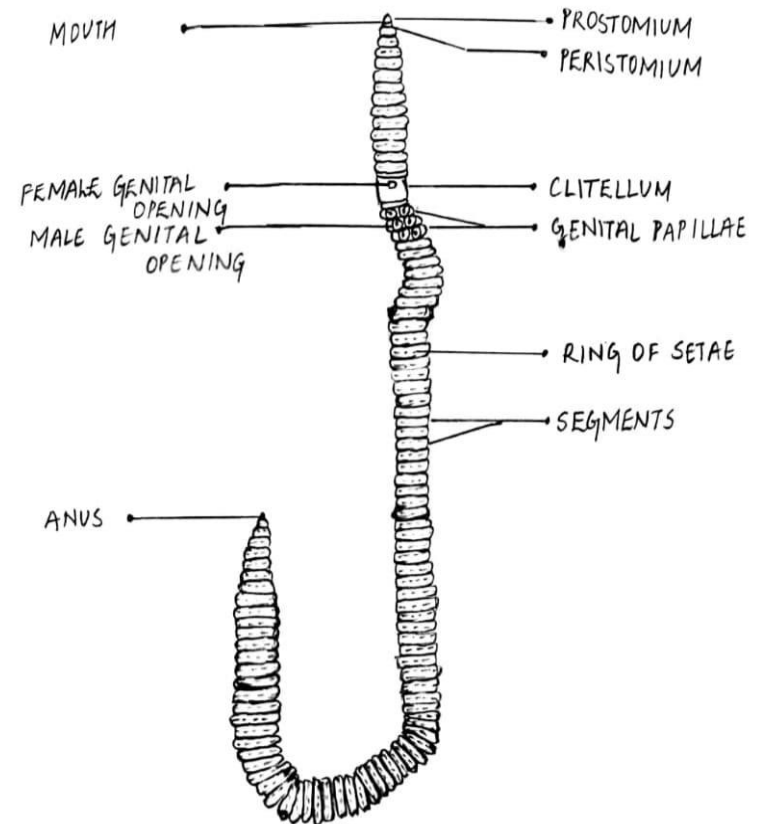
Distribution :

Cosmopolitan.



Comments :

- Commonly called as Earthworm.
- Body consists of 100 to 120 ring like segments depicting true metamerism and measuring approximately 150 mm.
- Both external and internal segmentations are distinct. The worm is glistening deep brown or clay-coloured.
- Except the first and last segment, each segment contains a row of setae in the ventral body wall.
- First segment is called as prostomium which contains ventral mouth. The last segments is called as anal segment containing anus.
- A portion of the body is thickened and is called as clitellum around 14 to 16 segments.



Pheretima : ventral view

Hirudinaria granulosa

Classification :

Kingdom.....Animalia

Phylum Annelida

Class Hirudinea

Genus*Hirudinaria*

Species..... *granulosa*

Habit and habitat :

Hirudinaria is found in freshwater ponds, lakes and swamps. It is a bloodsucking or sanguivorous ectoparasite feeding and sucking the blood of frog, fishes and men.

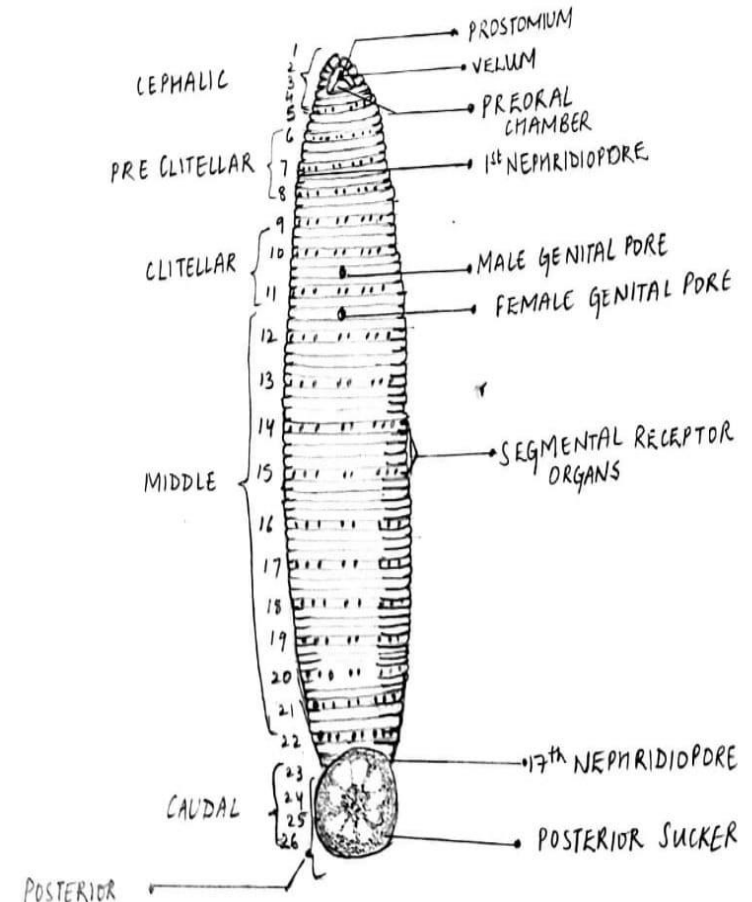
Distribution :

It has cosmopolitan distribution and specially found in India and Myanmar.



Comments:

- Commonly called as Indian cattle leech.
- Body is soft, vermiform, elongated dorsoventrally flattened, measuring 30 to 35 cm in length.
- Skin is kept moist and slimy due to abundant mucus secretion.
- Anterior and posterior suckers are well developed.
- Dorsal surface is olive green, ventral surface orange-yellow or red. Both surfaces have black stripes.
- Body is divided into cephalic, preclitellar, clitellar, middle, caudal and posterior sucker regions with 33 segments. Each segment is superficially divided into 5 annuli.
- Eyes 5 pairs dorsally. Segmental receptor organs are 4 pairs (dorsal) and 3 pairs (ventral). Anus is on 26th segment, nephridiopores on 6 to 22 segments ventrally, male-genital pore on mid-ventral, inter-segmental groove of 2nd and 3rd annuli of 10th segment and female-genital pore on 11th segment.
- Hermaphroditic.



Hirudinaria granulosa : Ventral view.

Chaetopterus

Classification :

Kingdom.....Animalia

Phylum Annelida

Class Polychaeta

Genus*Chaetopterus* (The paddle worm)

Habit and habitat :

Chaetopterus is a tubicolous, marine and bioluminescent annelid which lives permanently in a U-tube, made of sand and mucus with incurrent and excurrent openings. The tube is parchment like. Mode of feeding is ciliary.

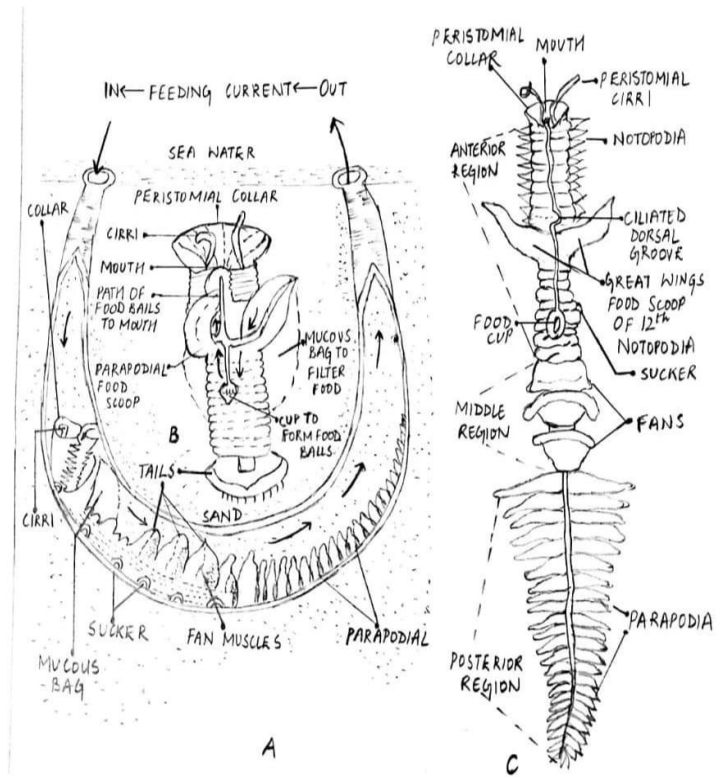
Distribution :

It is commonly found in Europe, U.S.A., North Carolina to Cape Cod.



Comment:

- Commonly called as paddle worm having greatly modified segments.
- Tube is opaque, measuring approximately 50 cm long and about 1 cm in diameter.
- Body is white, delicate, 30 cm long and divided into anterior, middle and posterior regions.
- The tentacles and palps are absent except a pair of backwardly directed peristomial cirri.
- Parapodia are variously modified as for water pumping fans, sucking discs or food ball organs.
- Posterior region is longer with a pair of parapodia in each segment, about 11 to 30 in number. special feature of the worm is its power of regeneration.



Chaetopterus : A-) Worm inside burrow
 B-) Anterior end showing feeding mechanism
 C-) Worm outside burrow.

Trochophore Larva of *Nereis*

Comments:

- In the development of *Nereis*, trochophore larva is formed after gastrulation.
- Larva is conical in shape, microscopic and fast swimmer.
- Anterior end contains apical sensory organ, having tuft of cilia. Nerve ganglion is present below it.
- Digestive system consists of open mouth, rounded stomach, intestine and anus.
- There are two ciliated bands for swimming-(i) pre-oral ciliated band or prototroch and (ii) post oral ciliated band or metatroch.
- Internally, larva contains coelom, larval nephridium, mesoderm, eye spot and larval muscles.
- After metamorphosis, trochophore larva changes to adult.

