

# Cephalochordata

## General characters -

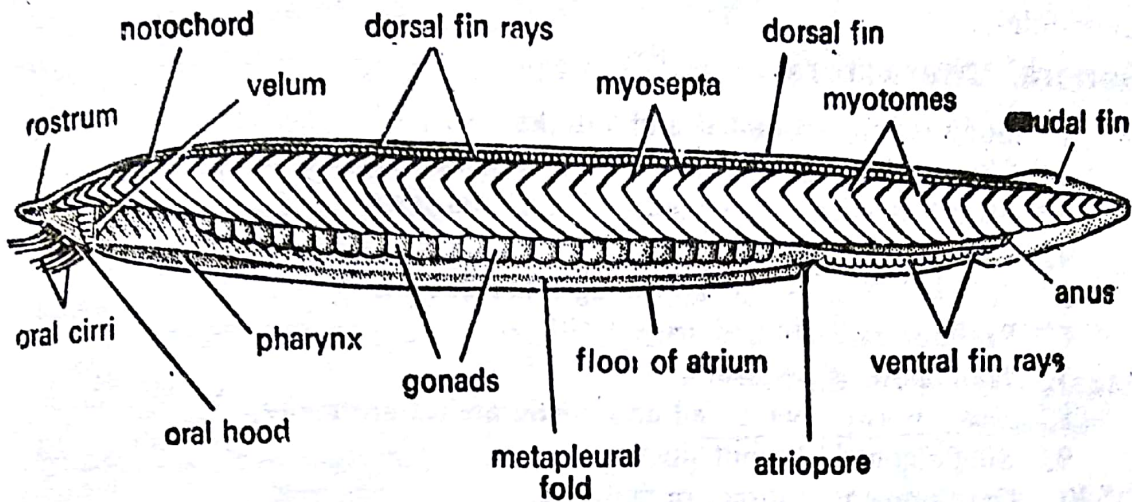
- Exclusively marine and solitary forms.
- Notochord and nerve cord extend the entire length of the body.
- Notochord is not surrounded by any vertebral column.
- Limbs or paired fins are absent.
- Mouth is ventral and anterior, while anus is ventral and posterior.
- Pharynx is large, perforated by numerous gill-slits and surrounded by atrium.
- Exoskeleton, head, brain, auditory organs, and jaws are absent.
- Sexes are separate.
- Gonads are metamerically arranged on the body-wall.

eg. Amphioxus.

## 16. Amphioxus

## Classification :

Phylum	... Chordata	→ Dorsal tubular nerve cord, notochord and paired gill-slits are present.
Group	... Protochordata	→ Marine and small forms. Cranium, jaws and paired appendages are absent.
Subphylum	... Cephalochordata	→ Solitary forms. <u>Notochord and nerve cord extend the entire length of the body.</u>
Genus	... <i>Amphioxus</i> ( <i>Branchiostoma</i> )	
Species	... <i>lanceolatum</i>	

Fig. 71. *Amphioxus*.

## Characters :

1. *Amphioxus* is a fish-like burrowing marine animal.
2. Body is elongated, measuring 5 cm in length, laterally compressed and pointed at both ends.
3. The anterior end projects forwards as the rostrum.
4. The fins are low and continuous with each other, a dorsal, a ventral, and a caudal fin.
5. There are two metapleural folds.
6. The myotomes are arranged on both the sides separated by V-shaped connective tissue partitions, the myosepta or myocommata.
7. The mouth is ventral to rostrum and is guarded by the oral hood bearing numerous oral cirri.
8. The atriopore is median and ventral and lies at the junction of metapleural folds and ventral fin.
9. The anus lies on the left side, a short distance in front of the posterior end.
10. The gonads consist of 26 pairs and are metamericly arranged on both the sides of the pharynx.
11. The sexes are separate but externally not distinguishable.

**Geographical distribution :** *Amphioxus lanceolatum* is world wide in distribution being found on the shores of all continents and many oceanic islands.