

Hemichordata

- endodermal
- hollow } Stomochord or Buccal diverticulum (notochord not true).

Gen. Character

- exclusively marine
 - Triploblastic
 - Organ system grade of org.
 - Enterocoelomate
 - alim. canal complete.
 - Deuterostomic plan
 - Branchial Resp. (Resp. by gills).
 - Circulatⁿ → Open Type
 - Excretion by excretory organ - Glomerulus / Proboscis gland
 - Excretory product → Ammonia
 - Nervous System → well developed.
 - Fert. - cross & development indirect.
 - Body distinct into - Proboscis, collar & trunk.
 - Larva → Tournaia - Bipinnaria
 - eg :- Balanoglossus (Tongue Worm)
Saccoglossus
- connecting link b/w chordates & non-chordates.

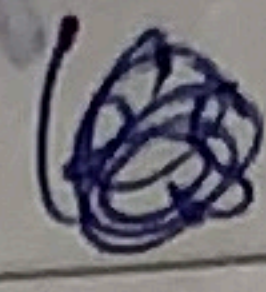
Chordata

(notochord bearing)

Classification of Echinodermata
based on shape of body.

Cls-I

Asterozoidea



Larva → Bipinnaria

→ Brachiolaria

leg: Asterias, Sea-star

Asteropecten

(Benthical) Starfish (Larva →

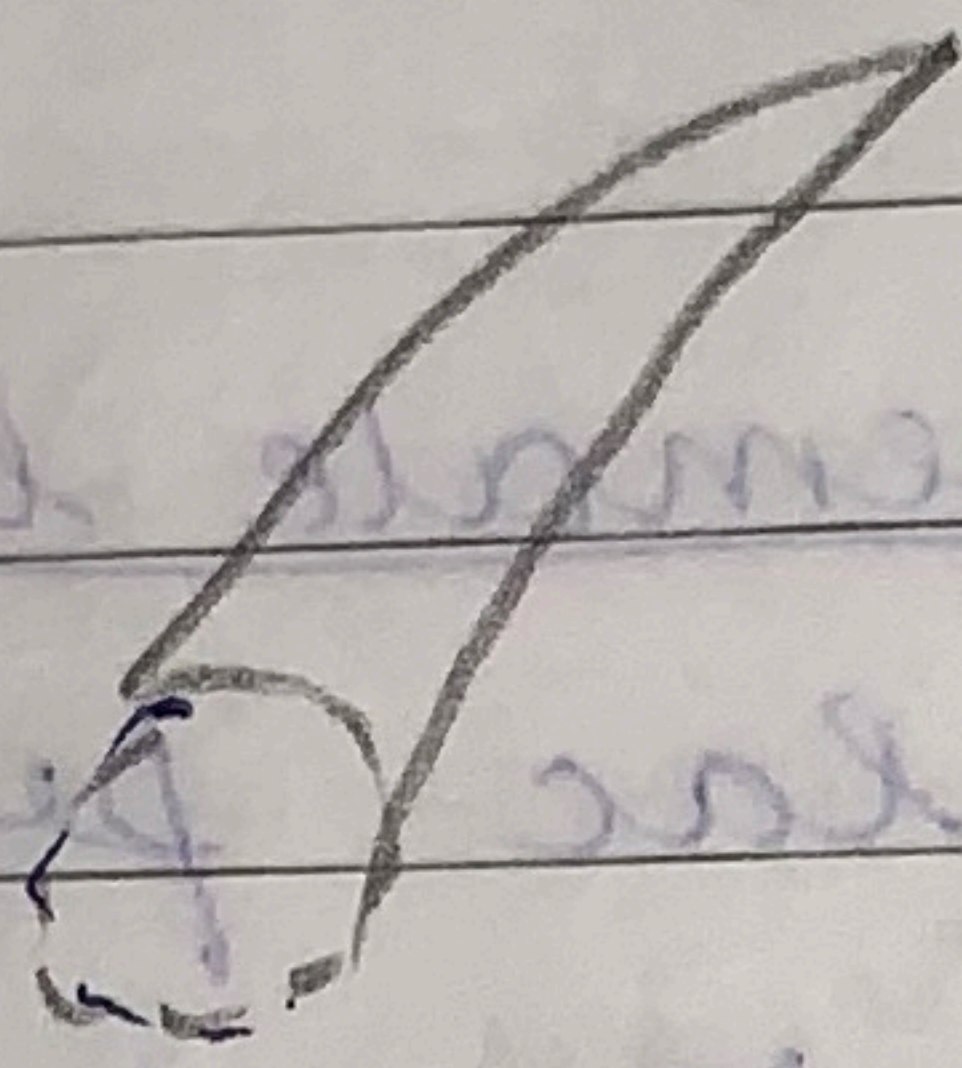
(Carnivorous)

Brachiolaria

Cls-II

Ophiurozoidea

(Ambulacral grooves absent.)



Larva → ophiopluteus

leg → Ophiothrix

(Brittle star)

→ Basket Star

Cls III

(Globular body without arms)

Echinozoidea

Larva → pluteus

Echinopluteus

leg: Echinus - Sea urchin

Clypeaster - cake "

Echinoocardium - heart "

Echinorachinus - sand dollar

→ Aristotal lantern → Masticatory apparatus

Cls IV

Holothurozoidea

(Elongated body without arms)

(Auricularia) Scyphozoa → Larva

Holothrix - Sea cucumber

Cls V

Crinozoidea (bearing pinnules)

Arms are present, but branched, Calyx for attachment

Larva - Auricularia larva

Antedon - Sea lily (feather star)