

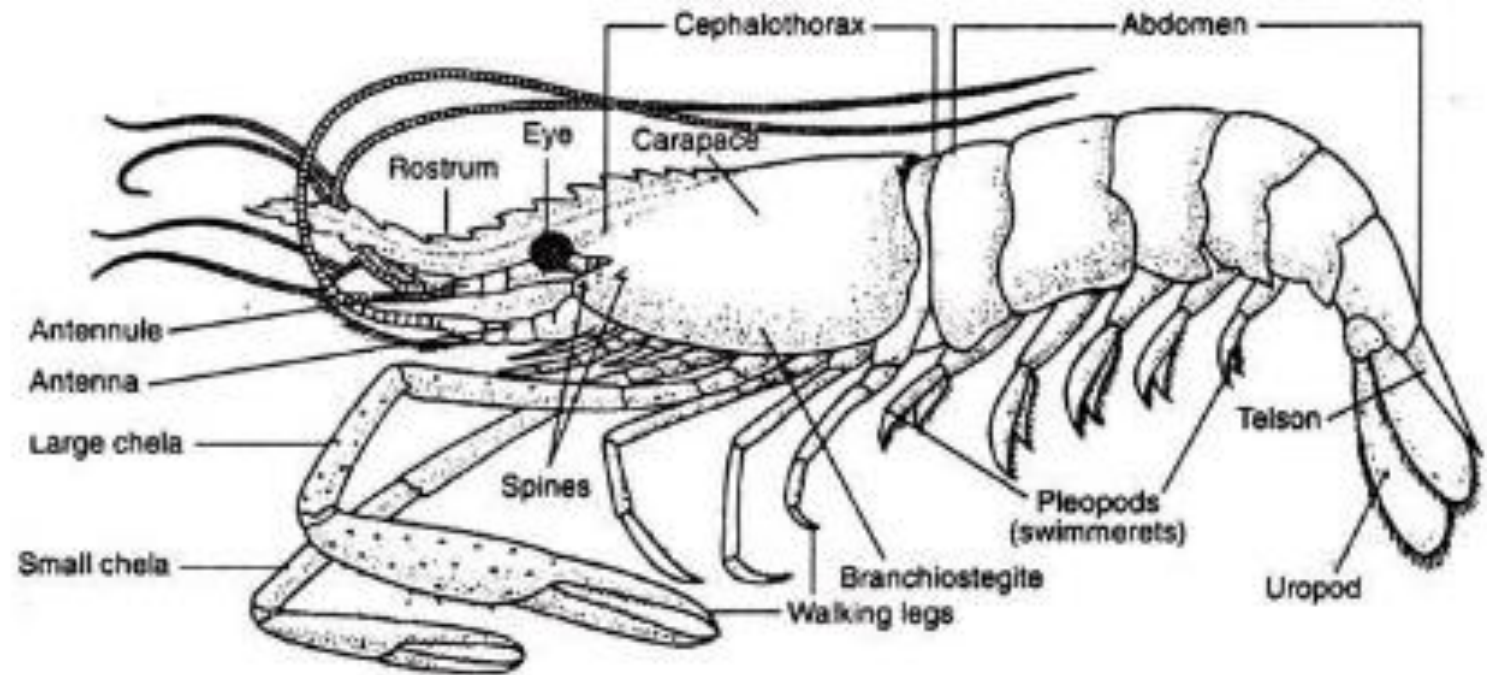
External morphology of prawn / shrimp



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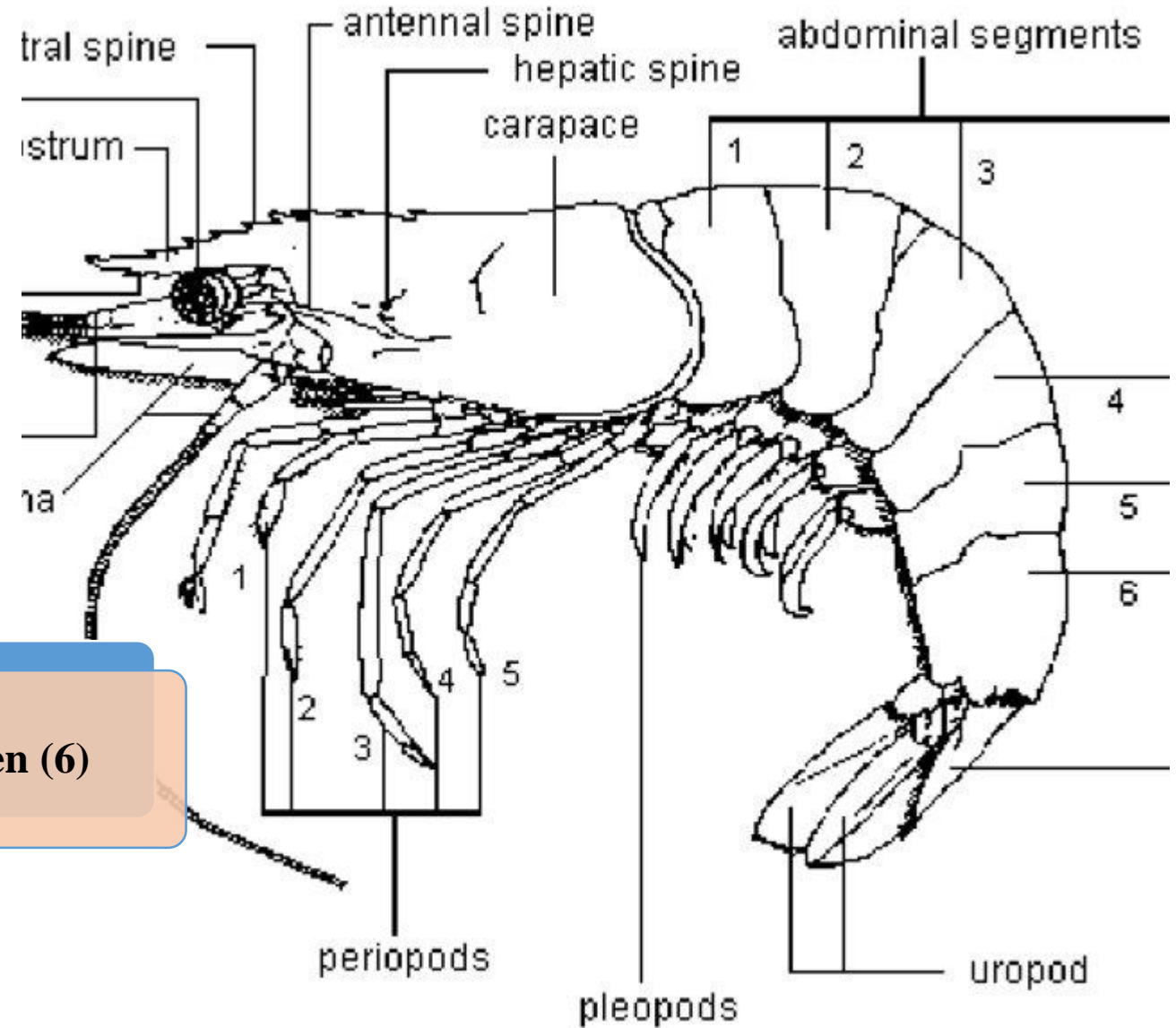
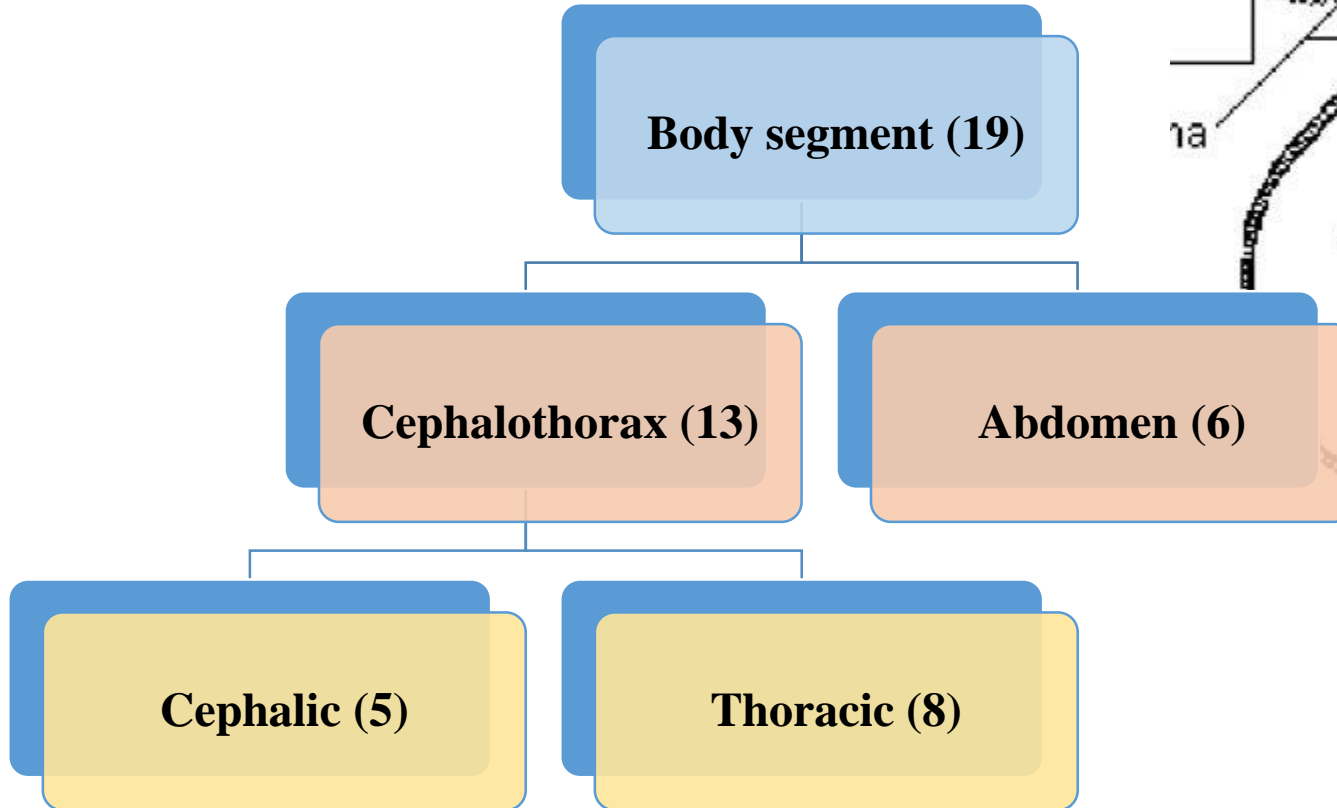
Morphology of prawn

- The body of prawn is elongated, bilaterally symmetrical and spindle shaped, Size vary from species to species
- The whole body of a prawn is covered by an external covering or external skeleton made of substance known as chitin
- The body of prawn is divided into two main parts
 1. Cephalothorax
 2. Abdomen



Division of Body

- Body consists of 19 segments having **two** distinct regions



Cephalothorax

Two portions

Cylindrical in shape and unjointed (no external segmentation is marked). It is formed by union of head and thorax

1. Head:

- Head is the anterior part of Cephalothorax.
- In the head there are five pairs of segmented appendages, which are
 - a. Antennule
 - b. Antenna
 - c. Mandibles
 - d. Maxillula and
 - e. Maxilla

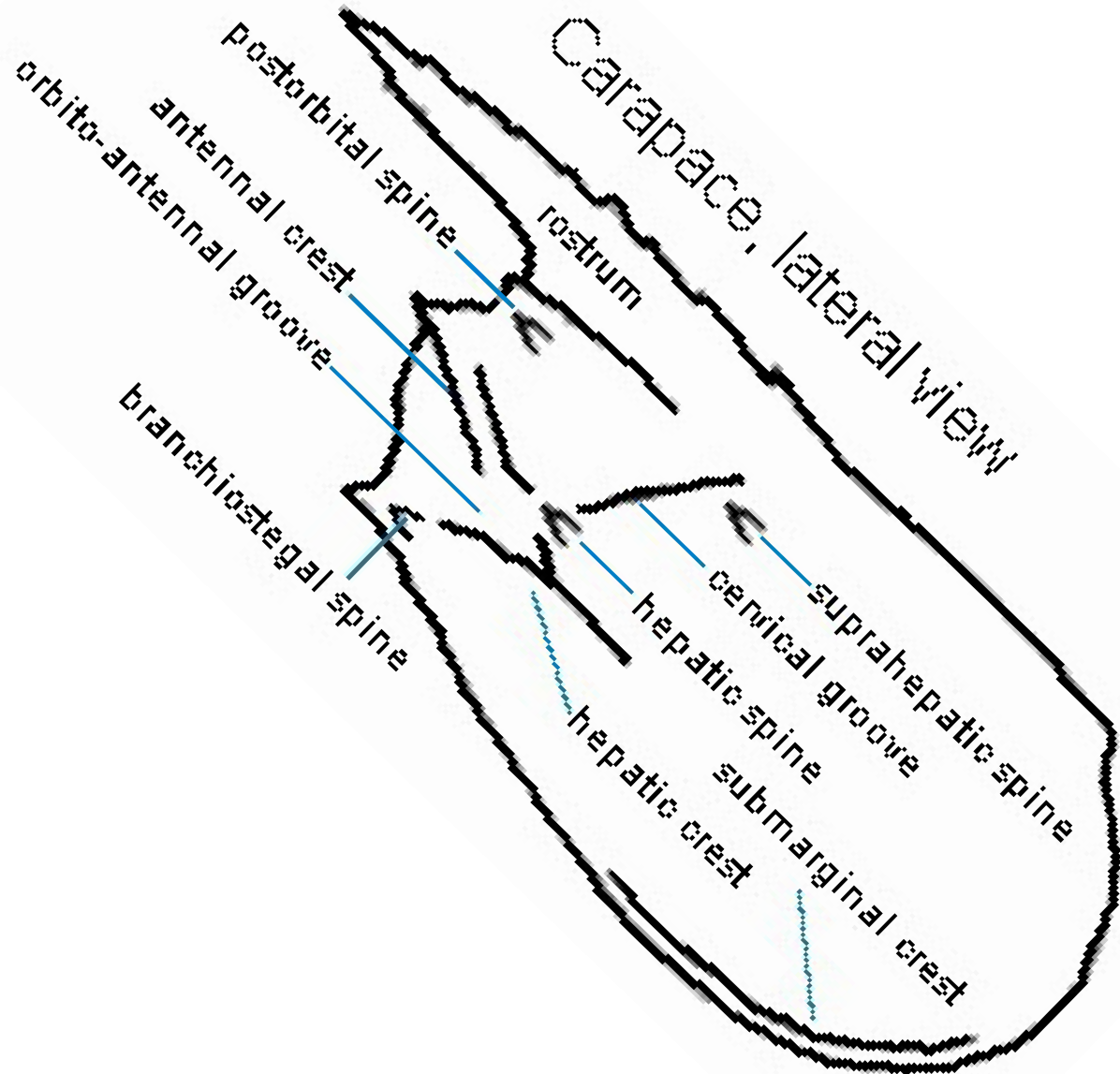
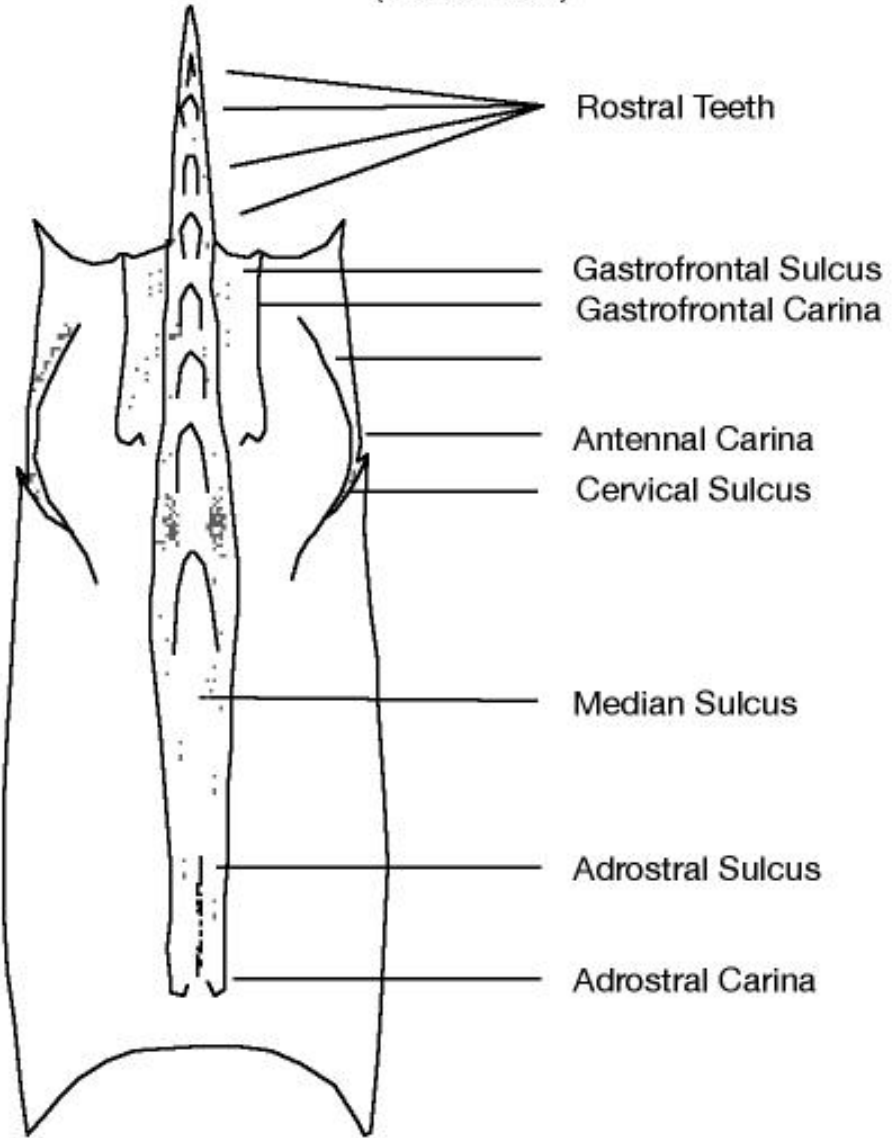
2. Thorax:

- Just behind the head thorax is situated.
- Head and thorax together form the Cephalothorax.
- The first **three pairs** of appendages are Maxilla like and known as Maxillipeds
 - Maxilliped 1
 - Maxilliped 2
 - Maxilliped 3
- The last **five pairs** of thoracic appendages are used for walking (Pereopods).
- These legs are tubular elongated and segmented.
- First and second pairs of walking legs are provided with forceps.

- The **Cephalothorax** is covered by a hard covering known as **Carapace**.
- At the anterior end of carapace there is a pair of black, round stalked compound eyes.
- In between the eyes there is a laterally compressed flat saw like rostrum.

Carapace

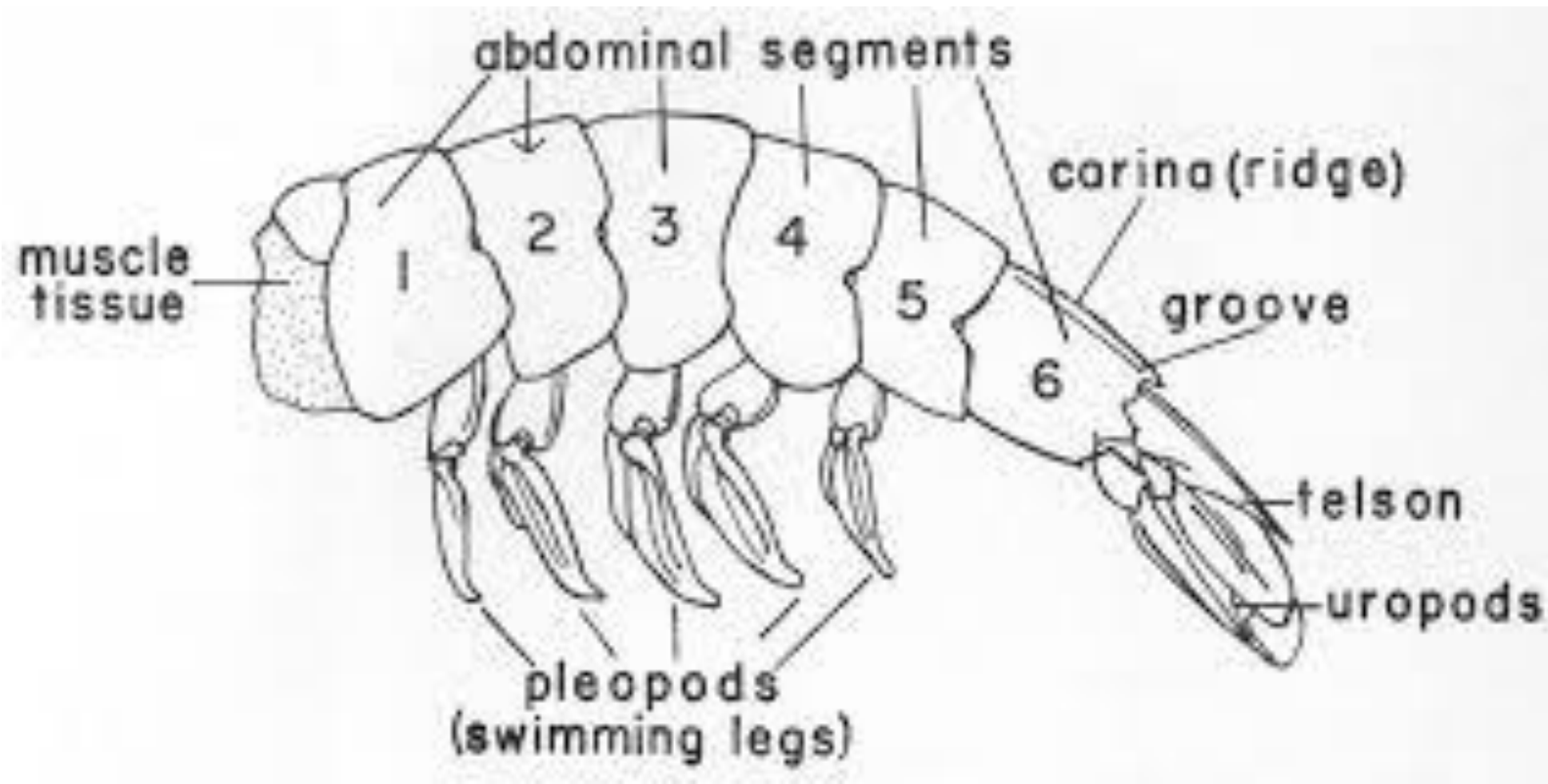
(Dorsal View)



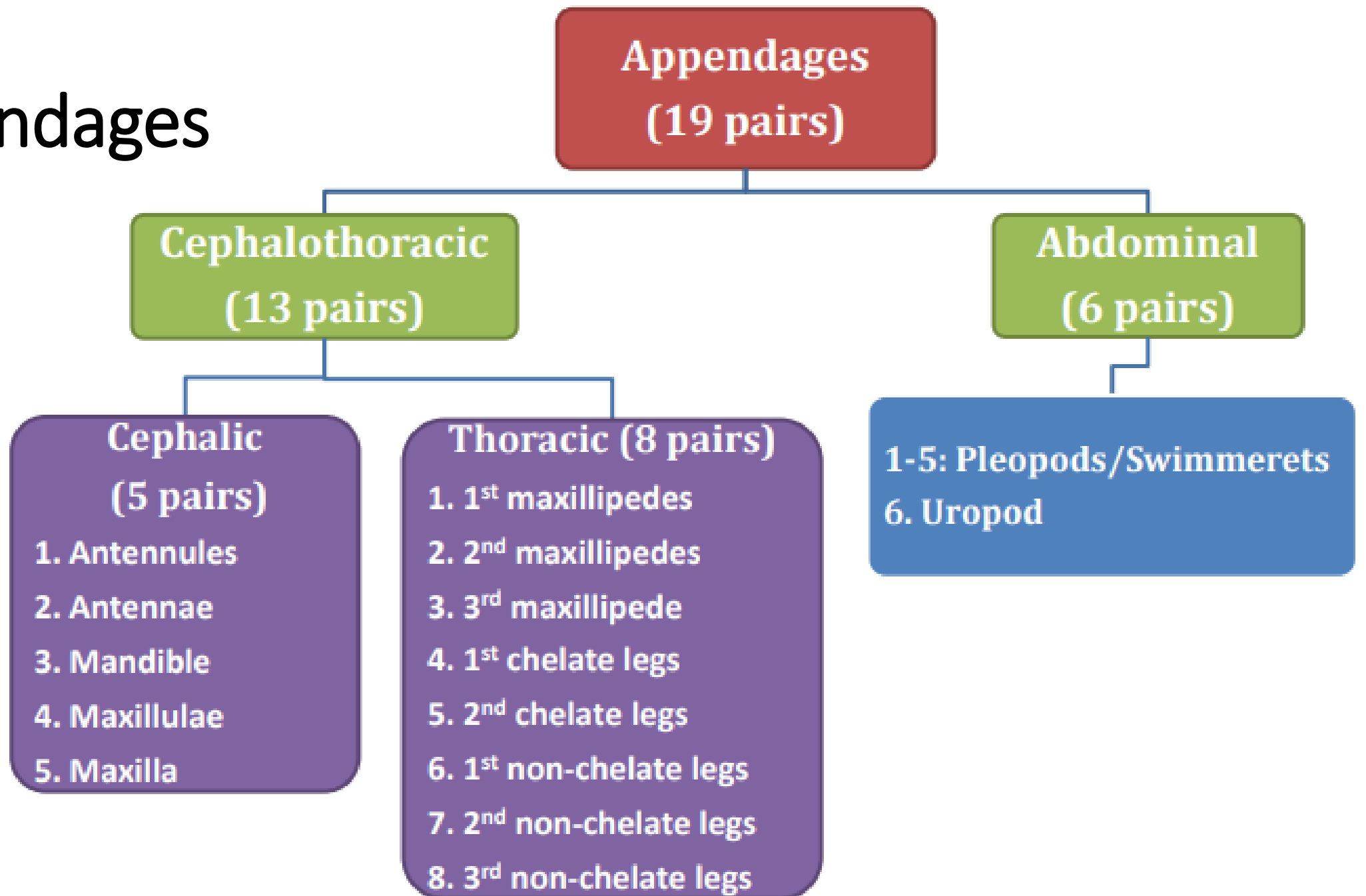
Abdomen:

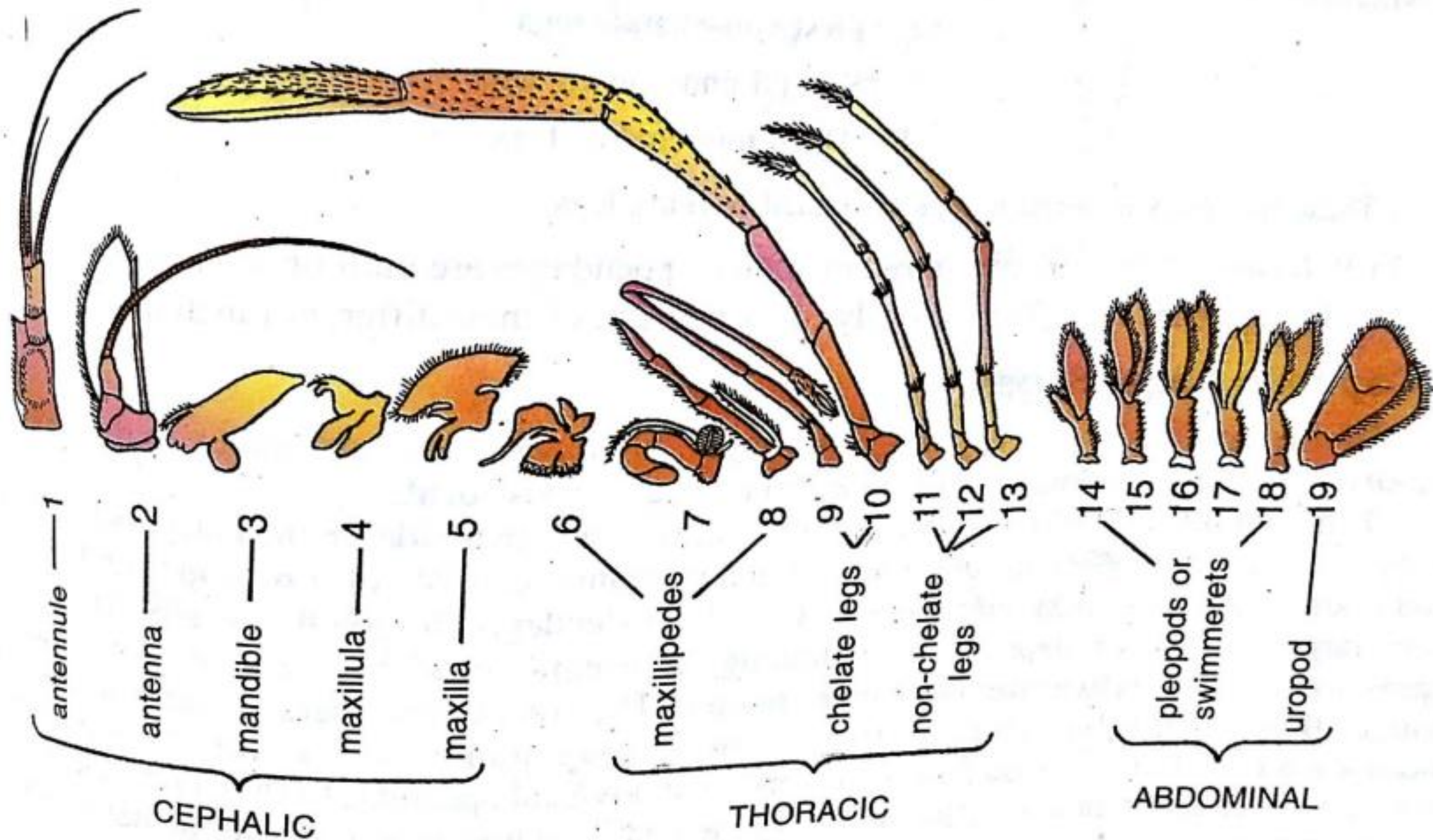
- The elongated portion of the body behind the Cephalothorax is abdomen.
- It is round dorsally and a compressed laterally.
- The abdomen consists of **six segments**
- In every segment of the abdomen there is a pair of appendages
- They are used for swimming and known as ***Pleopods***.
- The first five pairs of swimming legs are similar.
- All the legs are segmented

- **Uropod:** The sixth or the last abdominal appendages are uropod or tail fin
- These are very big oar-shaped.
- At the end of abdomen the pointed portion is known as **Telson**.

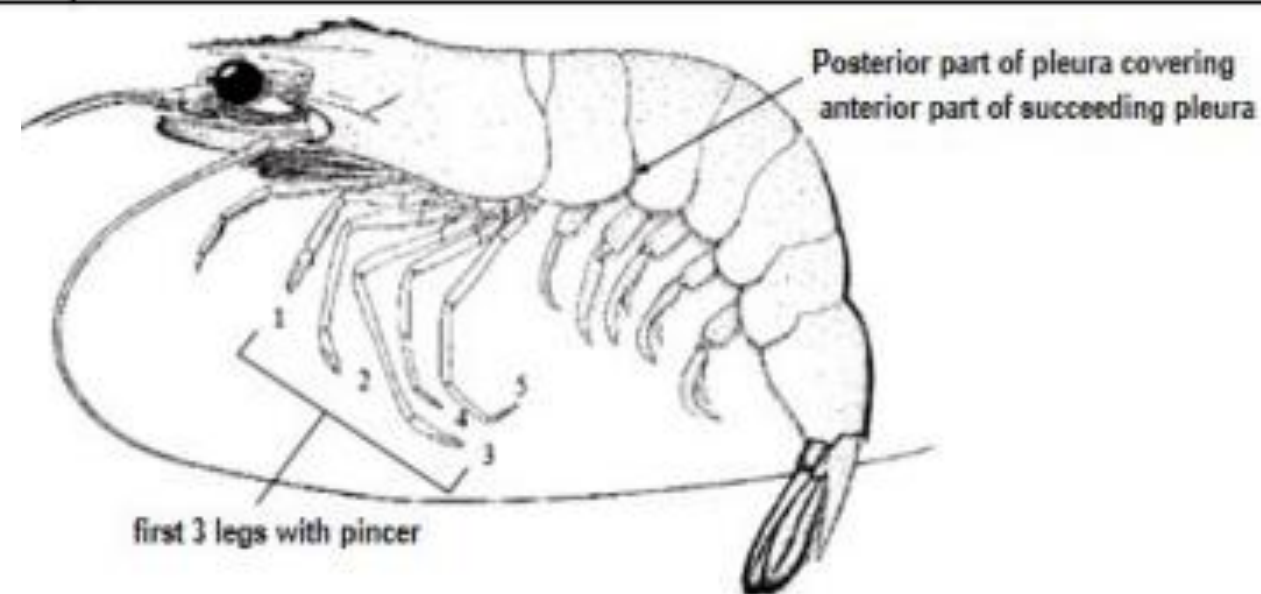
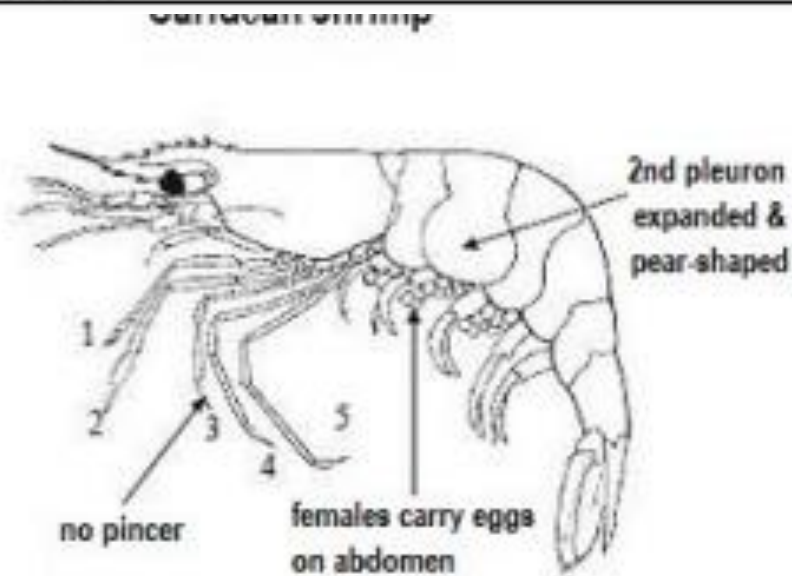


Appendages

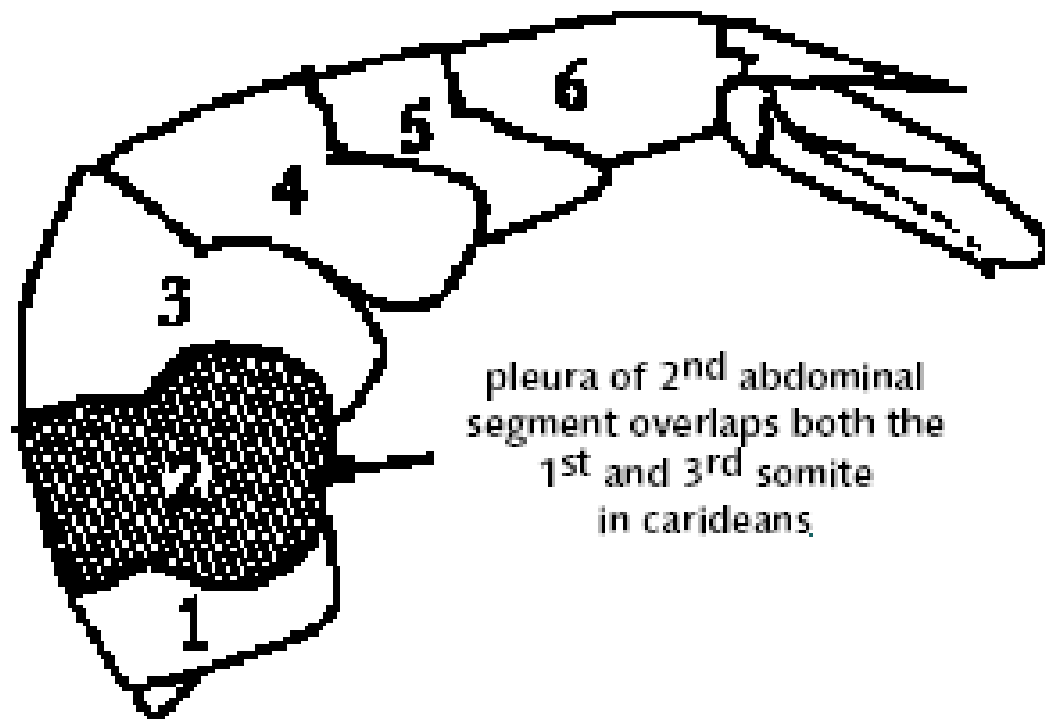




	<u>Non- Penaeid prawns</u>	<u>Penaeid prawns</u>
1.	Pleura on either side of the exoskeleton of the second abdominal segment overlap the pleura of the first and third segments	Pleura on either side of the exoskeleton of the second abdominal segment overlap only the third segment
2.	Only the first two thoracic legs are chelate	The first three thoracic legs are chelate
3.	Such organs for transferring and storing are not present	Male possesses "Petasma" for transferring sperm and female possesses "thelycum" for storing the sperm
4.	Females carry eggs between their pleopods as a cluster	Females lay eggs individually in water



Freshwater (caridean) prawns can also be distinguished from penaeid shrimp by looking at the second pleura on the abdomen (see arrow)

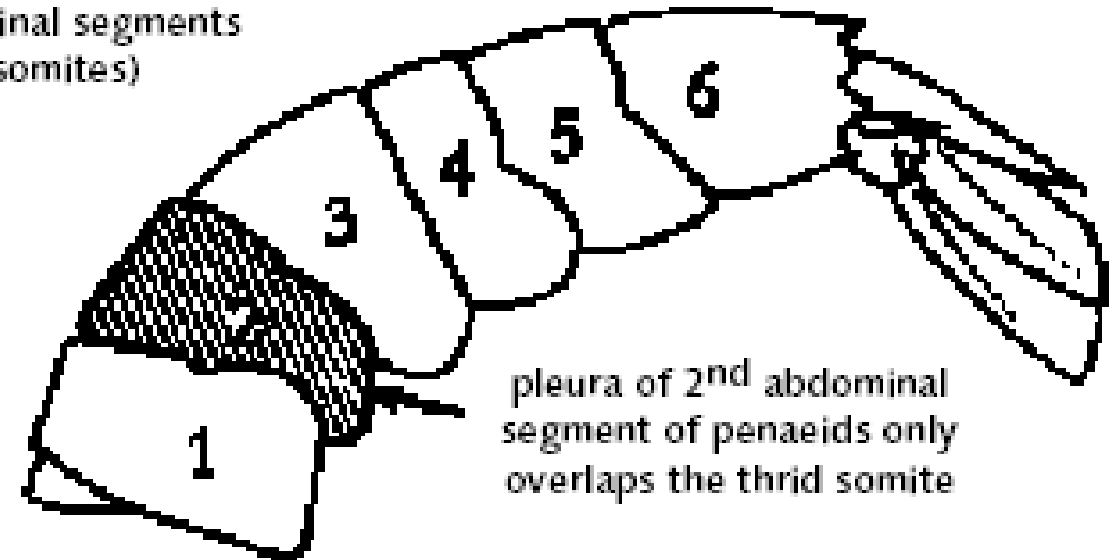


pleura of 2nd abdominal segment overlaps both the 1st and 3rd somite in carideans

CARIDEA

(includes *Macrobrachium rosenbergii*).

1-6
abdominal segments
(somites)



pleura of 2nd abdominal segment of penaeids only overlaps the third somite

PENAEIDEA

(includes *Penaeus* spp.)