

1. Indian River water prawn is called Palaemon'. Marine water prawn is called Penacus'.
2. The body of the prawn is divisible into Cephalothorax and abdomen.
3. Cephalothorax is made by 13 segments which includes cephalic and thoracic regions.
4. The cephalic region contains 5 segments and thoracic region contains 8 segments.
5. In the abdomen 6 segments are present.
6. The cephalothoracic region is covered by a carapace, k produces anteriorly a rostral spine.
7. In the abdomen the segments are clearly seen.
8. Each segment is covered on dorsal side by a convex tergal plate and a ventral thin sternal plate.
9. Both are connected on the sides by pleuron.
10. In the abdomen the appendages are attached to small plate, called Epimeron on the pleuron.

### **Cephalothoractc appendages:**

1. These are 13 pairs.
2. First 5 pairs are called Cephalic appendages.
3. The next 8 pairs are Thoracic appendages.

### **Cephalic appendages:**

1. **Antennules:** The protopodite is 3 segmented, with basal structure precoxa, coxa and basis.
2. In the precoxa a statocyst is present.
3. It maintains equilibrium of the animal.
4. On the basis 2 long, many segmented whip like feelers are present. They are tactile sense organs.
5. They are not homologous to exopodite and endopodite.
6. The outer feeler is further divided into an inner smaller branch and outer larger branch.

**Antenna:** The protopodite shows coxa and basis.

1. Endopodite is long feeler like structure, which is a tactile sense organ.
2. The exopodite is plate like and it is called Squama.
3. It works as a balancer during swimming.
4. At the base of the coxa renal opening is present.
5. Antenna is sensory, excretory and balancing in function.

**Mandibles:** They are present on either side of the mouth.

1. The basal part of coxa is divided into two parts, it shows a mandibular and incisor process.
2. The mandibular process shows 5 or 6 dental plates.
3. The incisor process shows 3 teeth. On the outer margin of the head a mandibular palp is present, which represents the basis and endopodite.
4. The exopodite is absent. The mandibles are masticatory in function.

**I Maxilla or Maxillula:** The protopodite is 2 lobed. They are called Gnathobases.

The endopodite is slender. Exopodite is absent.

It helps in the manipulation of the food.

**II Maxillae:** The protopodite is fan and is divided into 4 lobes.

1. Endopodite is small and unsegmented.
2. The exopodite is broad, and plate like structure.
3. It is called Scaphognathite or baler. It is useful to bring in water into the branchial region.
4. It is helpful for respiration and manipulation of food.

**Thoracic appendages:**

1. They are 8 pairs.
2. The first 3 pairs are Maxillipedes.
3. The remaining 5 are walking legs.
4. **I Maxillipede:** They are thin and leaf like.
5. Protopodite is 2 segmented. The endopodite is short.
6. Exopodite is present.
7. It is bilobed. Epipodite is respiratory in function.
8. It is present on the outer side of coxa.

**II Maxillipede:** It has 2 segmented protopodite.

1. Coxa bears a conical epipodite and a gill Endopodite is 5 segmented.
2. The five segments are ischium, merus, carpus, propodus and dactylus. Exopodite is long and unsegmented.

**III Maxillipede:** It looks like a walking leg. It has 3 segmented endopodite.

1. The basal segment corresponds to ischium and merus.
2. The apical segment is fused and corresponds to propodus and dactylus.
3. The middle one is carpus.

**4. Walking legs:** They are 5 pairs.

1. The first 2 pairs are chelate and the other 3 pairs are nonchelate.
2. They are useful for walking.
3. The typical walking leg has a two jointed protopodite and 5 jointed endopodite.
4. The protopodite has two segments, coxa and basis.
5. The endopodite has ischium, merus, carpus, propodus and dactylus.
6. In the first and second pairs of legs the propodus is prolonged beyond its articulation with dactylus and it looks like a chela or pincer.
7. Such legs are called chelate legs. They catch the food and push it into the mouth.
8. The second chelate, leg in male is larger and powerful than in females.
9. The 3rd, 4th and 5th walking legs are non chelate.
10. In female the 3rd walking leg bears a female reproductive opening on the inner side of coxa.
11. In the male the genital opening is present on the arthrodial membrane between the thorax and 5th walking leg.

**Abdominal Appendages:**

1. Abdomen bears six pairs of appendages.
2. Each appendage is biramous. These are called pleopods or swimmerts.
3. The protopodite has coxa and basis. The basis bears two flat leaf like exo and endopodite.
4. From the inner margin of the endopodite a small appendix interna arises.
5. In the females during breeding season the appendix interna of opposite appendages unite and carry eggs.
6. In the first pair of abdominal appendages the appendix interna is absent.
7. The second abdominal appendages of male shows appendix masculine also.
8. The sixth pair of abdominal appendages will be called Uropods or tail feet.
9. They are large and lie one on either side of the telson.
10. The two uropods and telson together form a broad tailfin.
11. It helps the Prawn to take a backward spring in water.
12. In a uropod the coxa and basis fuse together to form a triangular sympod.
13. It helps the Prawn to take a backward spring in water.
14. In a uropod the coxa and basis fuse together to form a triangular sympod. It bears exo and endopodites.

Thus the appendages of Prawn are helpful in food collection, respiration and locomotion.

