

Respiratory Organs of Prawns (Bee Part-1)

The respiratory organs of Prawns are:—

- i) A pair of branchiostegites.
- ii) 3-Pairs of epipodites.
- iii) 8-Pairs of gills.

These are contained in a pair of gill chambers situated one on either side of the thorax and are protected externally by the down-ward growths of Carapace known as gill covers or branchiostegites.

i) Branchiostegites :- The inner lining of the gill covers of the branchiostegites is thin and vascular and is in direct contact with water current. These absorb O_2 from the water and give out CO_2 in to it.

ii) Epipodites :- These are simple leaf like or bag-like outgrowths of integument on the outer side of coxa of the maxillipedes present in first three thoracic segments.

Thus three of them are found in the anterior part of each gill-chamber. These are highly vascular and serve as the organs of respiration.

iii) Gills - There are eight gills in each gill chamber but only seven are seen on removing the gill cover as the 3rd gill lies below the 2nd. Depending upon their location, the gills are differentiated into three groups

namely - (a) Podobranch (b) Arthrobranch
(c) Pleurobranch

(a) Podobranch :- There is one podobranch attached to the outer side of coxa of the 2nd maxillipede.

(b) Arthrobranch :- There are two arthrobranchs or joint gills in each gill chamber attached to the arthrothral membrane developed in relation with the 3rd maxillipede and body.

(c) Pleurobranch :- The pleurobranch is the gill attached to lateral wall of the thoracic segment. Palaemon possesses 5-pleuro-branchs bound one in each of the five thoracic segments which also carry walking legs.

Rest in next