



Vishwendu Vida Prasarak Mandal's
(Regd. No: MAH 1906 / F-1614; Dt.5/3/1987)
Abhinav Vidyalay & Junior College
(Govt. Regd. No. Prim.Edu. 6-970,90-91 Dtd:16-8-90; Index No: Sec:16.17.019 / 020;
H.Sec: J16.17.24)
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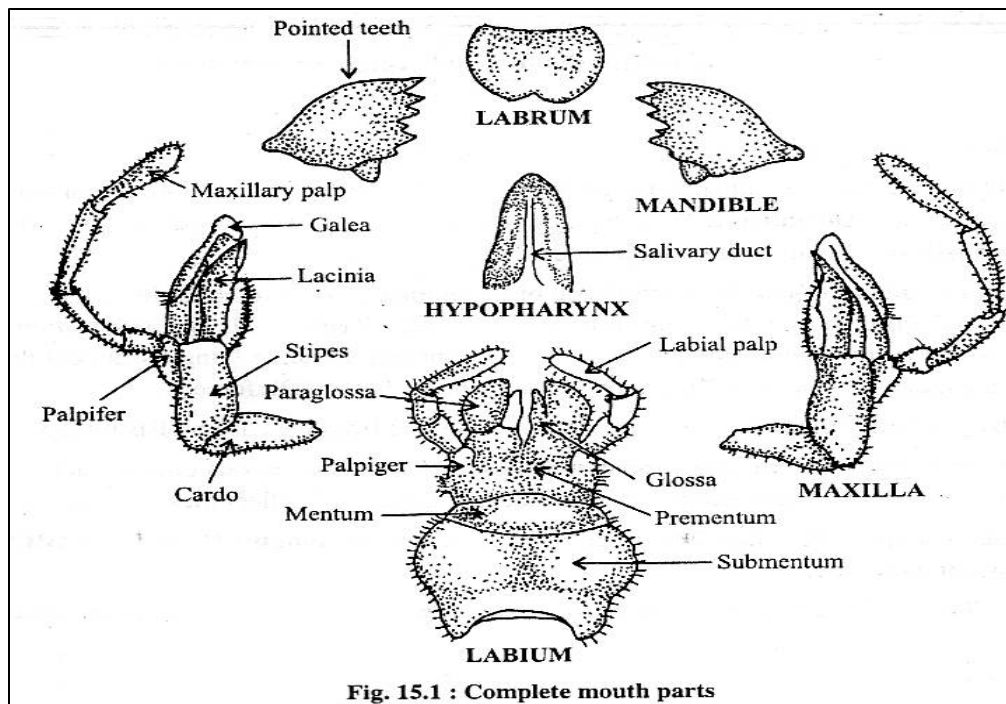
B12D3_Cockroach_Mounting

Aim: To dissect & identify the mouth parts of cockroach

Requirements: Cockroach, petridish, slides, cover slips, magnifying lens, dissecting & compound microscope & dissection box.

Procedure:

- 1) Hold the head of the cockroach in between the thumb & the index finger & take out the labrum with the help of BB forceps.
- 2) Lift up the antennae & hold them in between the thumb & index finger. Insert a pin at the base of the labium & separate it from the tissue that lies underneath it. Remove the labium with the help of BB forceps by cutting it at its base with angular scissors.
- 3) Catch hold of the cordo & remove the first maxilla with the help of BB forceps.
- 4) Cut the membrane below the mandibles & take them out.
- 5) Observe a small flap like tongue in the centre. Hold it with BB forceps & remove it intact.
- 6) Place all the parts on a slide & add a few drops of dilute KOH solution to dissolve the muscles.
- 7) Arrange the mouth parts onto slide.
- 8) Observe the slide thus prepared under a dissecting microscope & note: The mouth parts include the labrum, a pair of mandibles, a pair of first maxillae, a pair of second maxillae & a Hypopharynx.



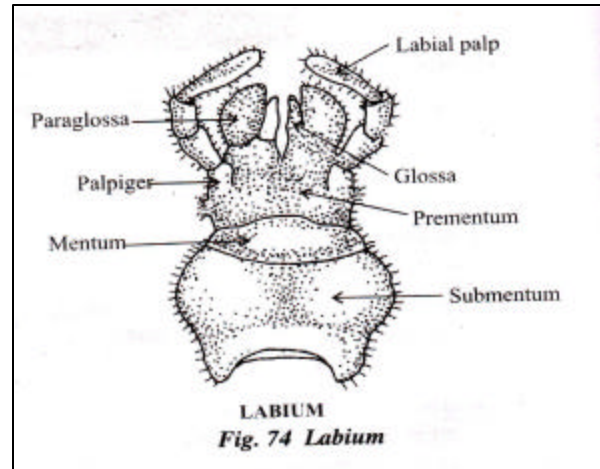


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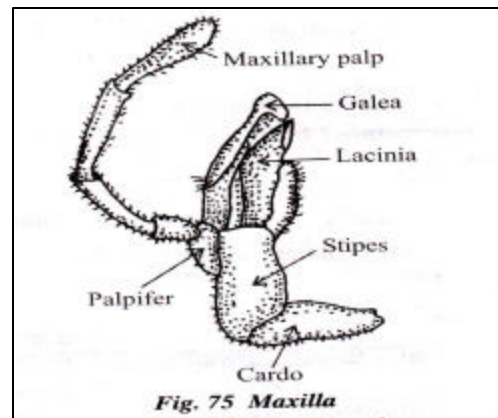
Labium:

Give spot is a labium/ second maxillae, the mouth parts of cockroach, forms unpaired structure called lower lip. It is made up of three broad basal parts – a broad basal plate the submentum, an oval middle plate, the mentum, a small prementum. The prementum bears in front in pair of inner lobes called glossae & a pair of outer lobes called paraglossae. The prementum also bears on the lateral sides a pair of three jointed labial palps, each of which is raised on a short projection called palpiger. The labium prevents the loss of food material from the mandibles & pushes the masticated food material in the mouth



Maxilla:

These are mouth parts of cockroach situated behind the mandible. Each one consist of two basal segment – cardo & stipe. Stipe bears a five segmented maxillary palp having sensory bristles. From the inner side of stipes arise two lobes, an outer galea & inner lacinia. They are used for holding the food & bringing it to the mandibles for mastication.



Mandible:

Given spot is a mandible/ true jaws – mouth parts of cockroach. Mandibles are a pair of hard, triangular chitinous structure present below the labrum on each side. Each mandible is provided with three strong pointed teeth a condyle, a set of abductor muscles & a set of adductor muscles. Mandibles are jaws used for cutting & masticating the food.

