# ZOOLOGY –SEM V

# TYPES OF LEGS IN INSECTS

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# STRUCTURE

In insects all the three thoracic segments viz. pro-, meso- and metathorax bear a pair of jointed legs.

Each leg consists of five segments :-

(a) Coxa — Short, stout varies in shape among taxa. It articulates with the thorax

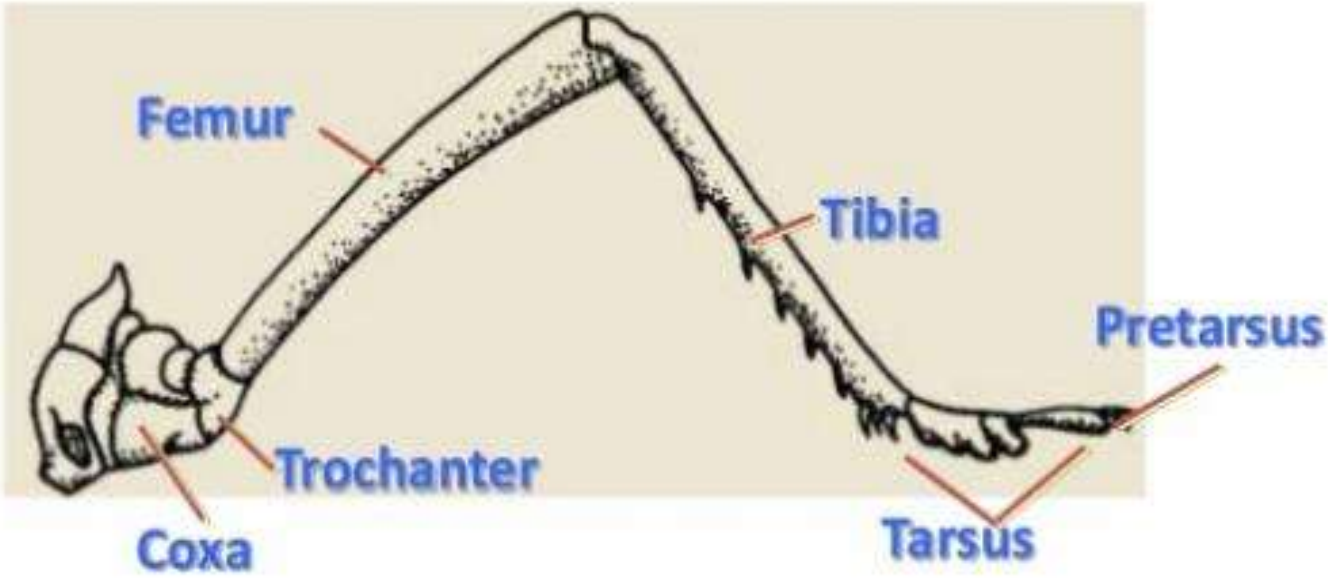
(b) Trochanter — Small freely movable in the vertical direction on the coxa and fixed to base of femur

(c) femur — largest and strongest segment, size related to mass of tibial extensor muscles within it

(d) Tibia — long and slender in adult insects. It bent towards femur has spines, apical/subapical spurs

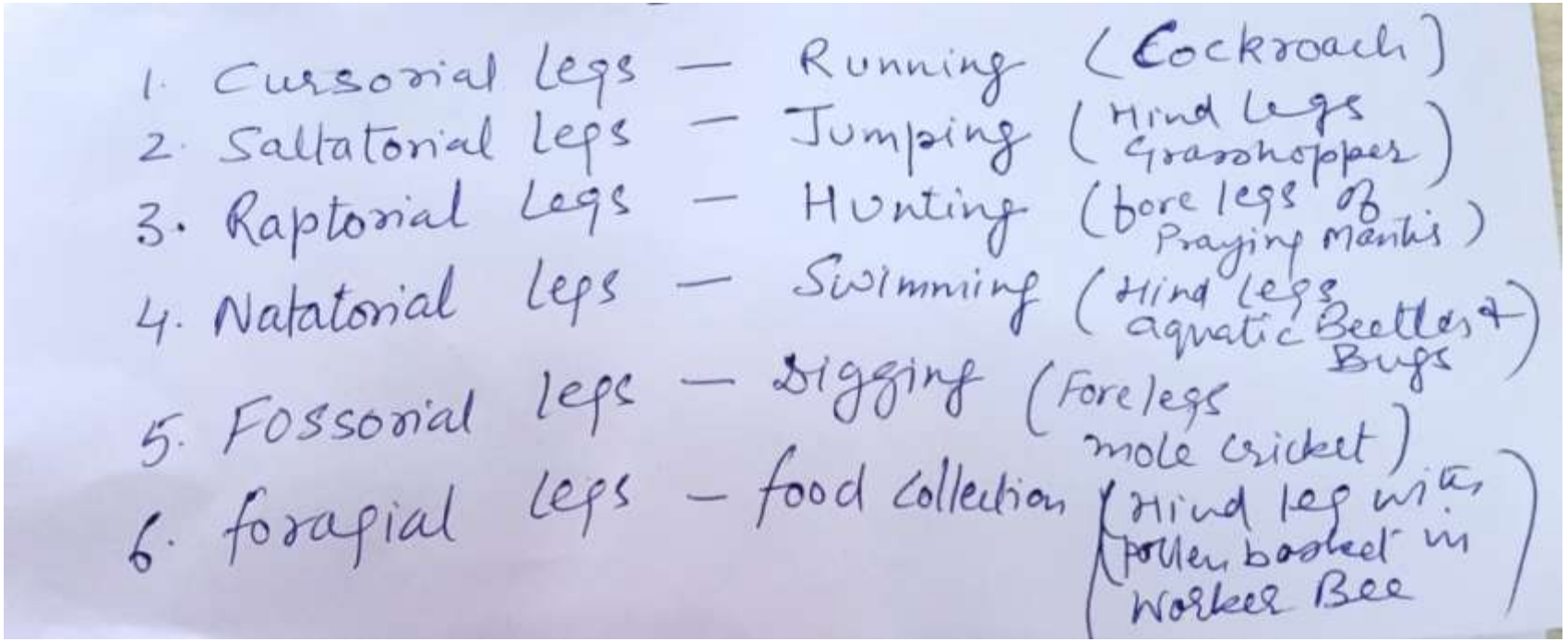
(e) Tarsus — Pretarsus terminal segment of the tarsus, other structures attached to it include (i) Ungues — a pair of claws
(ii) arolium — Adhesive pad between the claws
(iii) empodium — a large bristle between the claws
(iv) Pulvilli — a pair of adhesive pads.

# Insect leg



## Types or modifications

Legs are modified in to several types based on the habitat and food habit of insect and used for a wide variety of functions

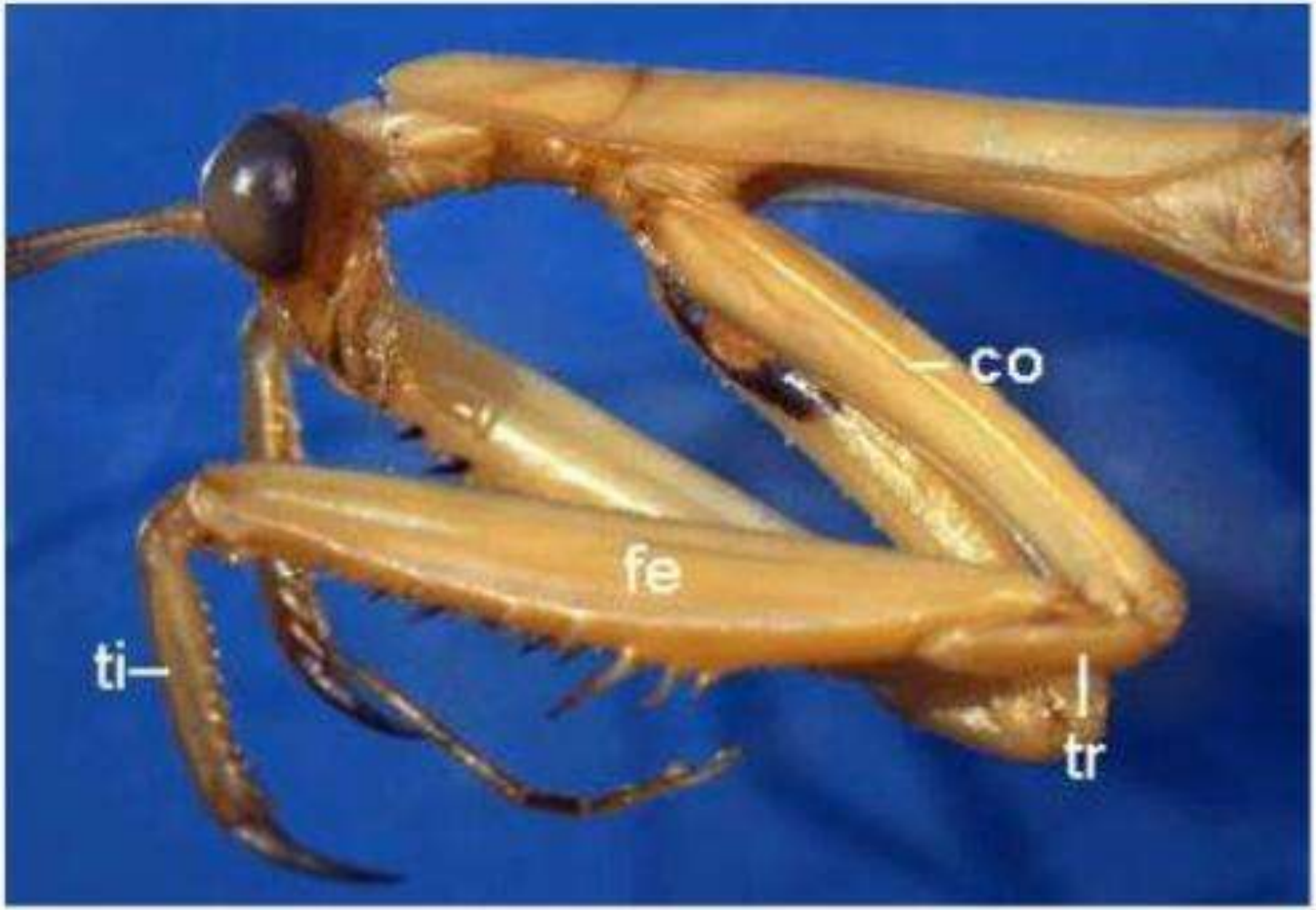



**7. SCANSORIAL LEGS – CLINGING OR CLIMBING (HEAD – LOUSE)**

**8. AMBULATORIAL LEGS – WALKING (HOUSE FLY, GRASSHOPPER)**

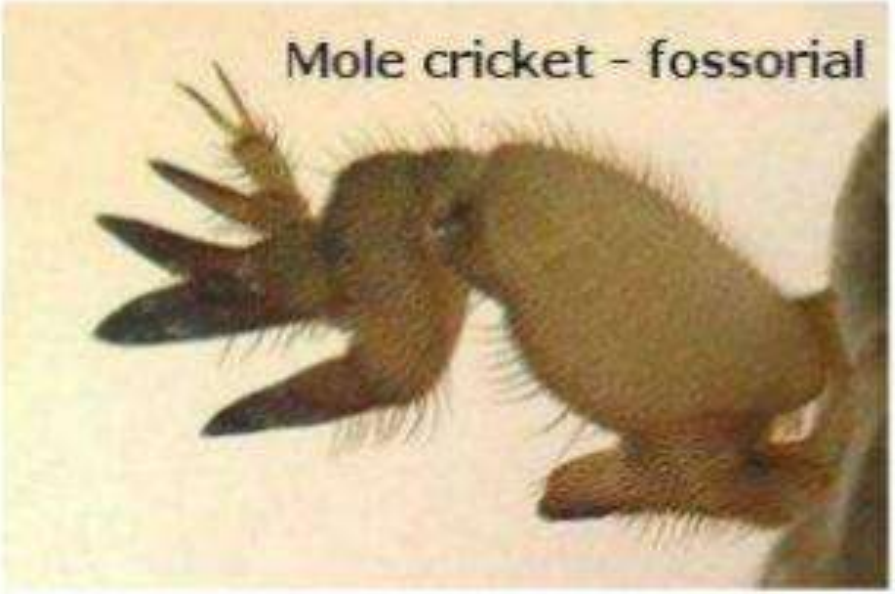
- SALTATORIAL
- Hind leg, jumping
- Enlarge femur
- grasshoppers

**Raptorial: (Raptorial = predatory ; Grasping leg)**
**e.g. Forelegs of preying mantis.**

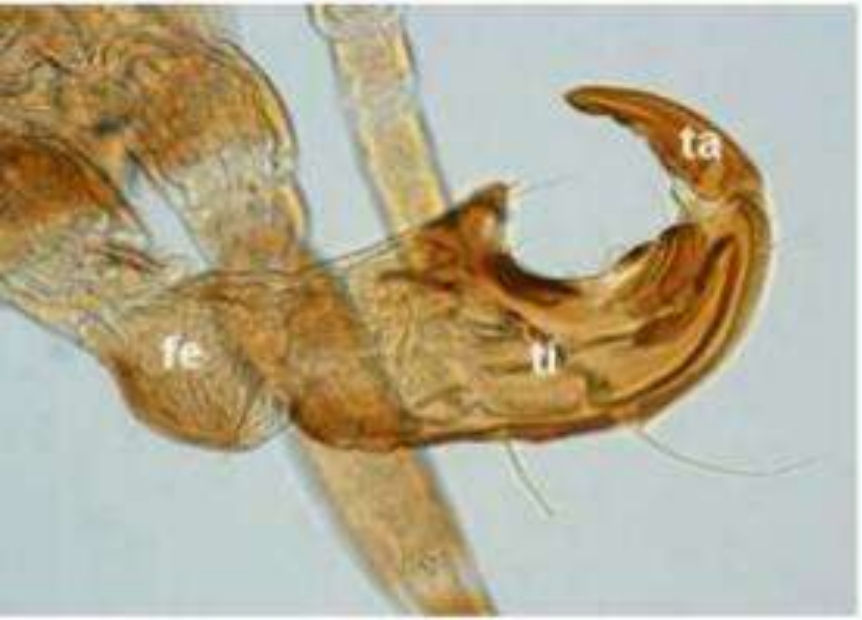


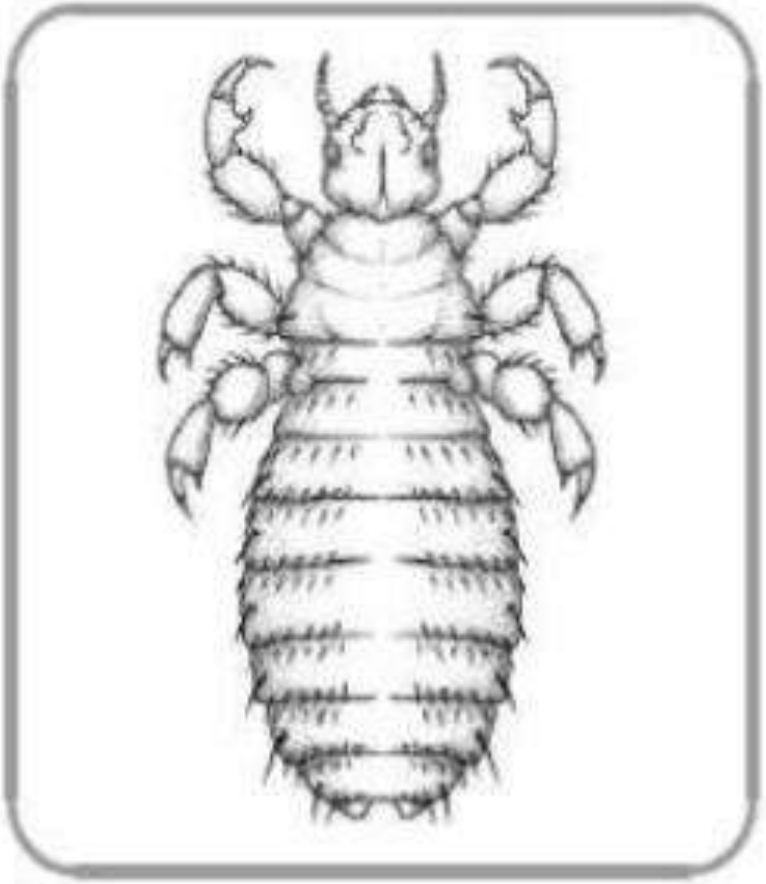
**Natatorial: (Natatorial = pertaining to swimming; Swimming leg) e.g. hing legs of water bug and water beetle.**

**Fossorial: (Fossorial = Digging; Burrowing leg)**
**e.g. Fore legs of mole cricket.**



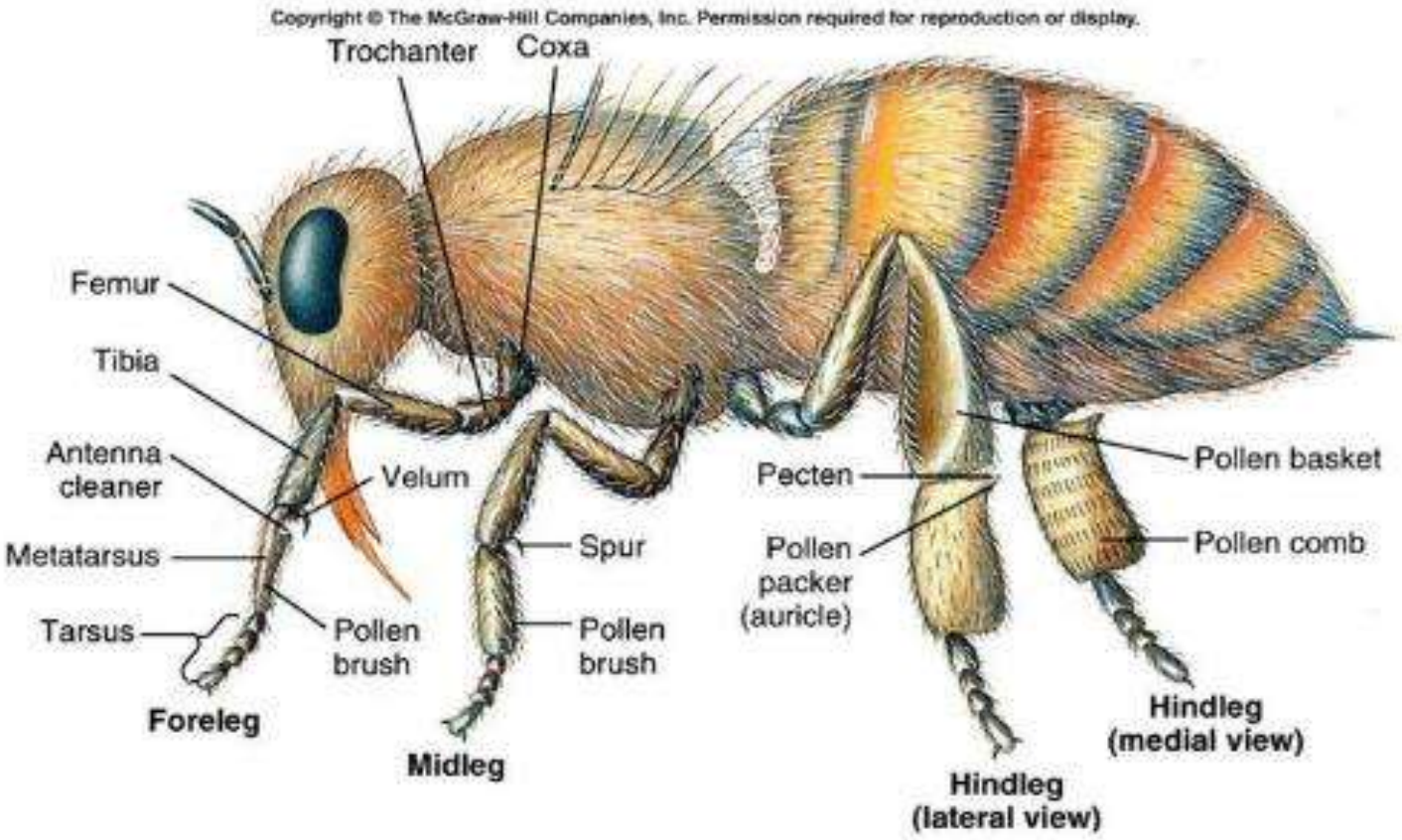
**Scansorial: (Scansorial = Climbing; climbing or clinging leg) e.g. all the three pairs of legs of head louse.**



# Foragial Leg

(Forage = to collect food material)

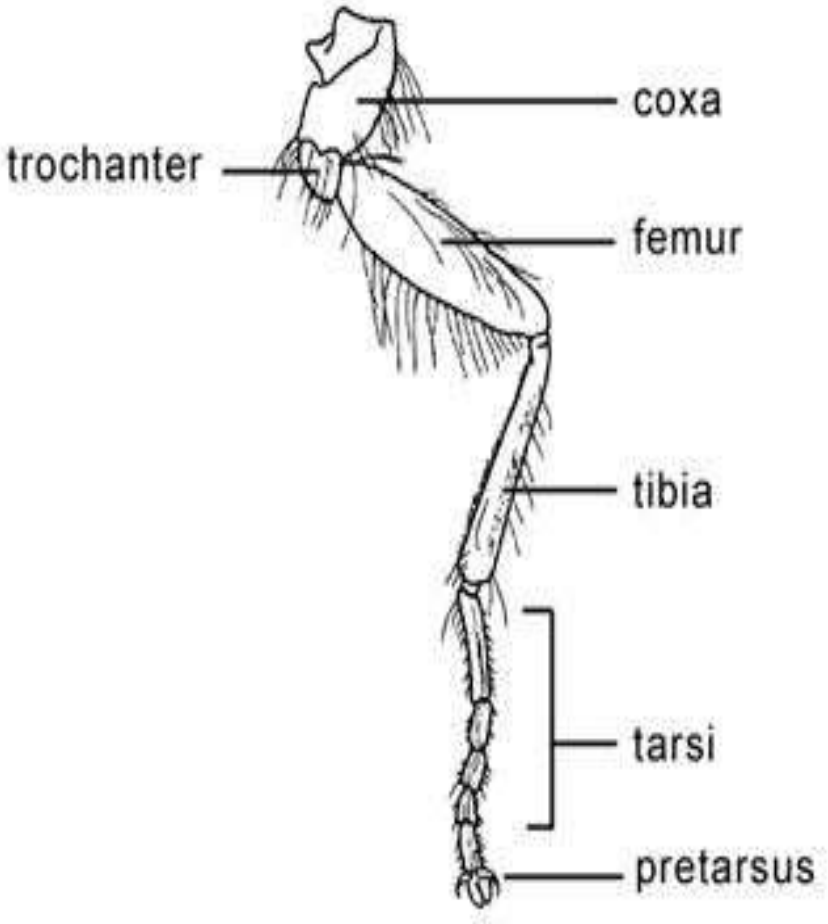


# Pollen carrying type : e.g., Honey bee.

- The hind legs of worker honey bees are adapted for assembling and carrying pollen.
- At the junction of the tibia and tarsus of the hind legs, a cavity guarded by hairs is present which serves as the organ for compacting pollen, the pollen press.
- The basitarsus lined with hairs is meant for carrying pollen. This is called the pollen basket or **corbiculum.**

**Ambulatorial (Ambulate - to walk; Walking leg) e.g. Fore leg and middle leg of grasshopper. Femur and tibia are long. Legs are suited for walking.**

# HOUSE FLY LEGS




- CURSORIAL
- Wakling, running
- Ground beetles, cockroach