

①

winged

wingless

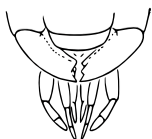
⑤

front wings hardened, leathery or parchmentlike at least at the base

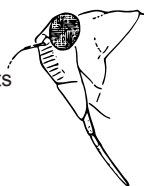
front wings membranous

②

chewing mouthparts



sucking mouthparts

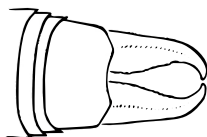


without pincer-like cerci

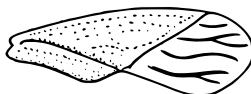
with pincer-like cerci

front wings leathery at base and membranous at end

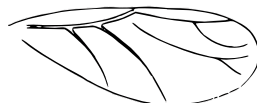
front wings of uniform texture



DERMAPTERA  
(earwigs)



HEMIPTERA  
(true bugs)

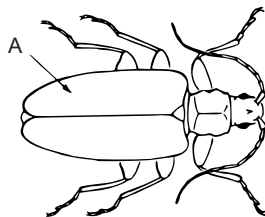


HEMIPTERA  
(leafhoppers, planthoppers, cicadas, spittlebugs)

front wings with branched veins



A. front wings hard, without veins



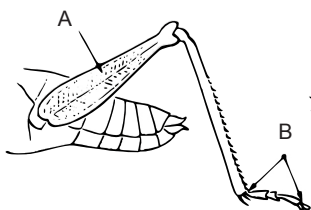
COLEOPTERA  
(beetles)

jumping insects

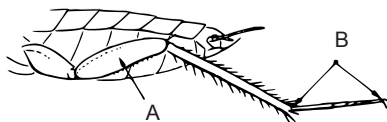
A. hind femur enlarged  
B. tarsi with four or fewer segments

walking insects

A. hind femur not enlarged  
B. tarsi with five segments



ORTHOPTERA  
(crickets, katydids, grasshoppers)



DICTYOPTERA  
(roaches, mantids, walkingsticks)