

RECOGNITION OF COMMON ORDERS OF INSECTS

Odonata - dragonflies and damselflies

- long slender membranous wings with many cross-veins
- hind wings similar to forewings
- chewing mouthparts
- long, slender abdomen
- larvae are aquatic

Orthoptera - grasshoppers, katydids, and crickets

- forewings leathery and narrow
- chewing mouthparts
- many have hind legs modified for jumping

Blattaria - cockroaches

- forewings elongate, often thickened (leathery)
- chewing mouthparts
- running legs
- cerci
- long antennae

Phasmida - walkingsticks

- chewing mouthparts
- looks like a stick

Mantodea - praying mantids

- forewings elongate, often thickened (leathery)
- chewing mouthparts
- enlarge forelegs for grasping prey
- distinctive neck

Hemiptera - true bugs

- forewings thickened at base
- hind wings membranous
- piercing-sucking mouthparts

Neuroptera - lacewings, ant lions

- fore and back wings membranous with many veins
- chewing mouthparts
- antennae long and many segmented

Coleoptera - beetles

- hardened forewing (elytra)
- hind wings membranous
- chewing mouthparts
- elytra meet in straight line down back

Lepidoptera - butterflies and moths

- fore and hind wings with scales
- antennae long and many segmented
- adults - siphoning mouthparts
- larvae - chewing mouthparts

Diptera - flies and mosquitoes

- forewings membranous
- hind wings absent, replaced with balancing organs called halteres
- different types of mouthparts

Hymenoptera - bees, wasps, and ants

- fore and hind wings membranous
- antennae usually threadlike
- chewing mouthparts with modification for sucking