

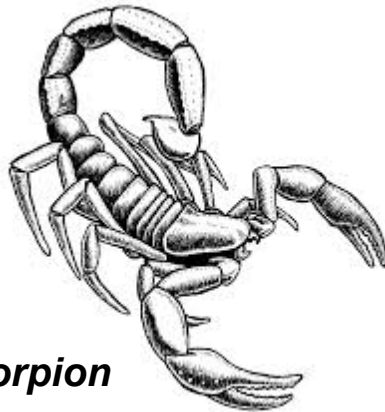


A QUICK GUIDE TO THE MAJOR INSECT ORDERS

*DO YOU HAVE AN INSECT? Do you see **6** legs?*

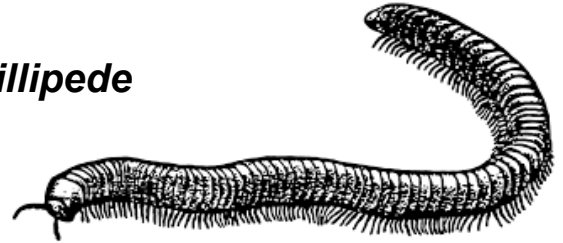


Spider



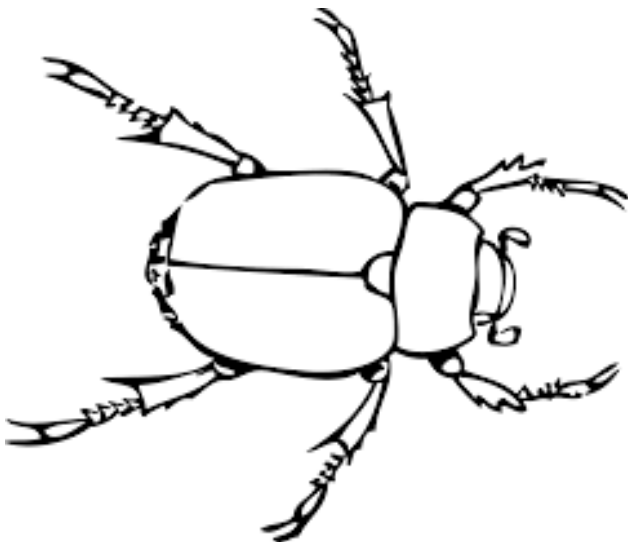
Scorpion

Millipede

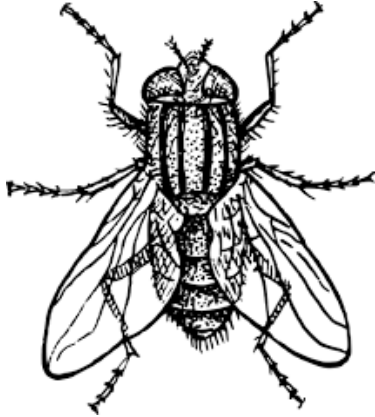


Centipede

The scorpion and the spider have 8 legs. The millipede and centipede have many, many legs. These animals are **NOT** insects because they have **MORE THAN 6 LEGS.**



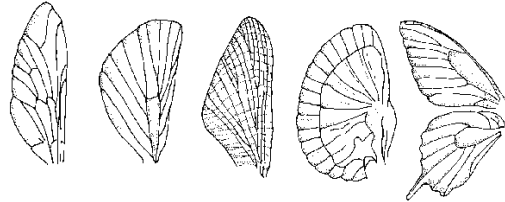
All adult insects have **6 legs** like this beetle!



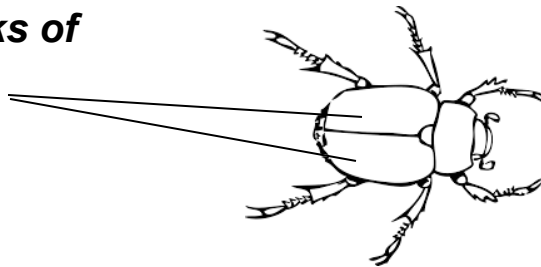
DO YOU HAVE AN ADULT INSECT?

Adult insects have WINGS most of the time, like this fly.

Wings can have many shapes and sizes



Even the hard backs of beetles are wings



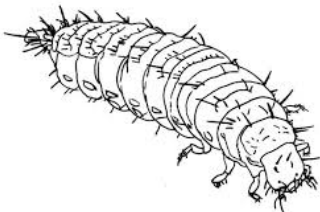
Some insect children (called larvae or nymphs) look like adults like this cockroach child with six legs but no wings.



Child: NO wings, 6 LEGS

Adult: WINGS! 6 LEGS

Some insect children (larvae) don't look like insects at all. These can have six legs, or none at all, and can even look like a worm!



The purpose of this guide is to help you figure out what group (order) your adult insect is. Good luck!

ADULT INSECT GUIDE

In this guide you will see many of the insect groups that you could find in your backyard or your neighborhood.



BLATTODEA Roaches

*'Avoiding light', **head under thorax***

Wings: 2 pairs, leathery

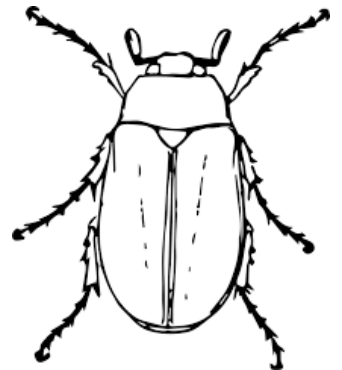
Children (nymphs) – like adults but no wings

COLEOPTERA Beetles

*'Hard wings', **hard shell***

Wings: 2 pairs, front wings hardened

Children (larvae) – variable: grub-like or worm-like



DERMAPTERA Earwigs

'Leathery wings', pincer tails

*Wings: 2 pairs, **short, tough***

Children (nymphs) – like adults but no wings

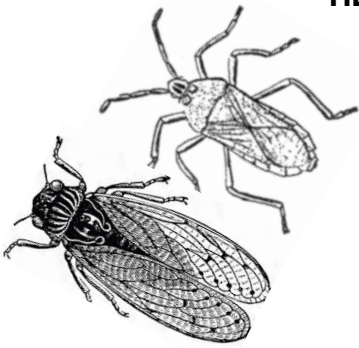
DIPTERA Flies

'Two wings'

*Wings: **1 pair only***

Children (larvae) – maggots





HEMIPTERA *True bugs*

'Half wings', **sucking mouthparts**

Wings: Variable - 2 pairs, X shaped or colored line

OR wings colored or clear held straight over back

OR wingless (ex. Scale insect)

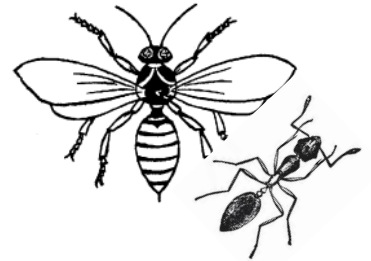
Children (nymphs) – like adults but wingless

HYMENOPTERA *Bees, wasps, ants & sawflies*

'Membrane wings', **wasp waist & stingers**

Wings: 2 pairs, except most ants (no wings)

Children (larvae) – maggot or grub-like



LEPIDOPTERA *Butterflies & moths*

'Scaly wings'

Wings: 2 pairs with **colored scales**

Children (larvae) – caterpillars

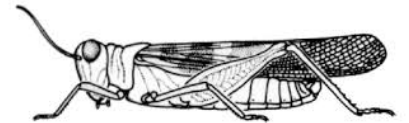


ORTHOPTERA *Grasshoppers & Crickets*

'Straight wings', **jumping hind legs**

Wings: 2 pairs, folded over back

Children (nymphs) – like adults but no wings



MANTODEA *Mantids*

'Like a prophet', **grabbing front legs**

Wings – 2 pairs, doubled over on back

Children (nymphs) – like adults but no wings

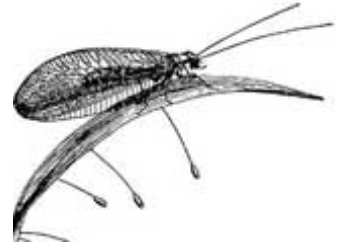


NEUROPTERA *Antlions & lacewings*

'Nerve wings', **net like wings**

Wings: 2 pairs w/ lots of veins, tent-like

Children (larvae) – long & flat, w/ BIG mandibles



ODONATA *Dragonflies & Damselflies*

'Toothed flies', enormous eyes

Wings: 2 pairs: **do not fold over back**

Children (nymphs) – aquatic



PHASMATODEA *Stick insects*

'Like a ghost', **stick-like body**

Wings: 2 pairs (males), females wingless

Children (nymphs) – like adults but wingless



Author: Greg Chism. Images courtesy of Creative Commons.

For more information about the UA Insect Discovery Program, please contact Kathleen Walker,
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<https://extension.arizona.edu/insect-discovery>