

# Characteristics of Insects:

## How to Recognize Several Common Insect Orders

illustrations and text by Donna Brunet

This guide discusses obvious characteristics of ten common insect orders. Learning these will help you immediately recognize most of the insects you see as a member of groups such as dragonflies, beetles and true bugs.

You will also learn to recognize the body type that separates insects from other animals such as spiders, mites, ticks, and millipedes.

### Characteristics of Insects

- exoskeleton
- 3 body regions: head, thorax, abdomen
- 3 pairs of segmented legs
- 1 pair of antennae
- most have 2 pairs of wings (a few insects, such as ants, don't usually have wings; some insects, such as flies, only have 1 pair of wings)

---

You can see some of my insect photographs on my website at <http://donnabrunet.com/pages/stock.html>

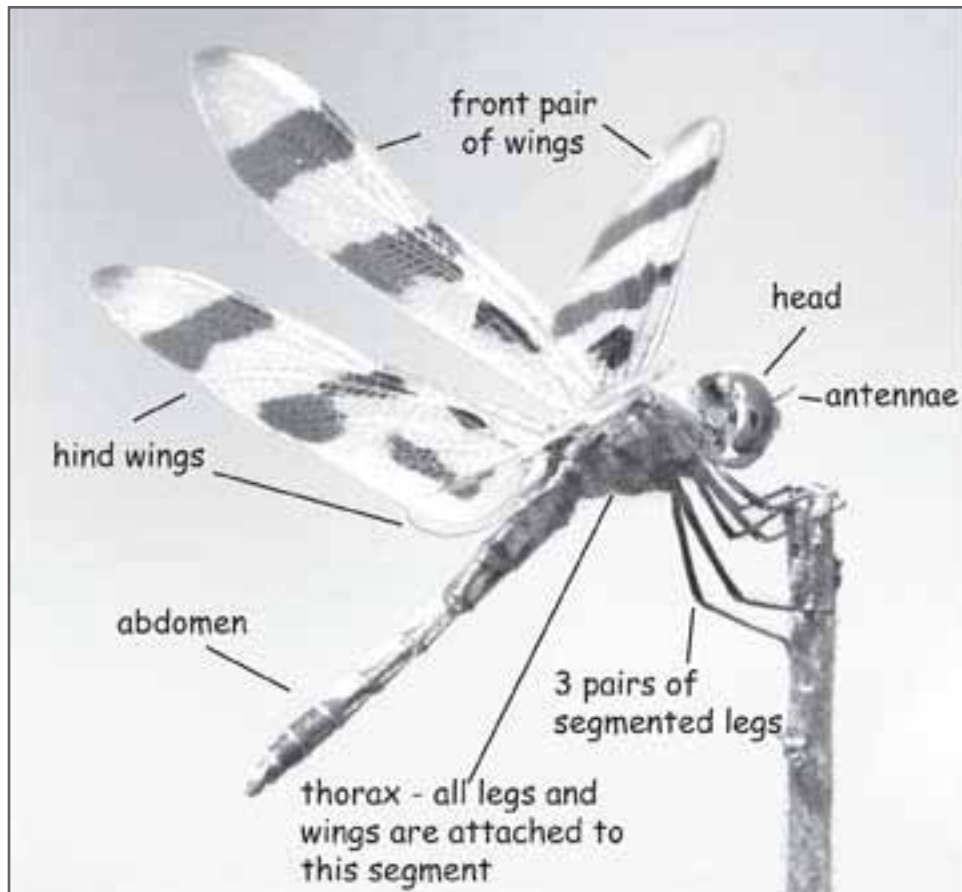
They are grouped by insect orders:

- dragonflies and damselflies
- butterflies, moths and skippers
  - beetles
  - true bugs
  - and others



© 2004 Donna Brunet

Argus Tortoise Beetle



## Web Coupon

expires June 30, 2012

Place an order at [donnabrunet.com](http://donnabrunet.com) for a growth chart you can use to create a permanent record of your child's or grandchild's height. They are fabric with a removable and re-usable adhesive.

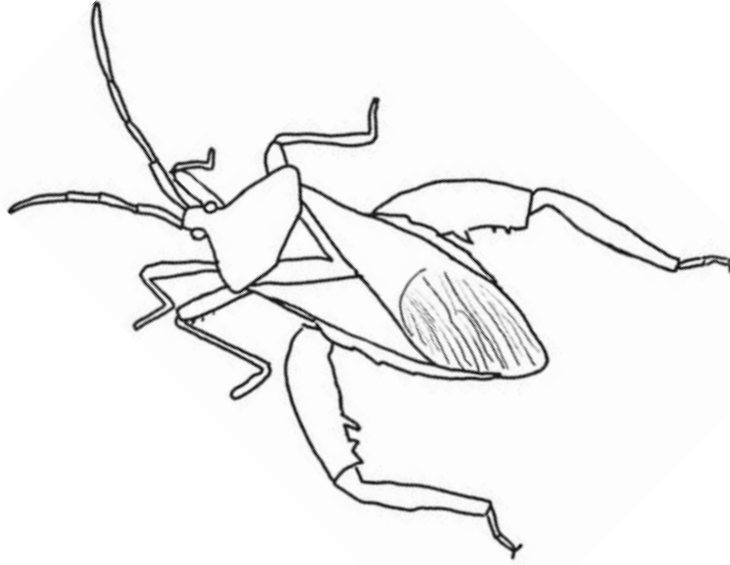
With the purchase of a growth chart, receive a FREE 5"x7" print of any image in the "all" print gallery found at <http://donnabrunet.com/pages/prints/all/index.html>

This size print normally sells for \$15. Just place an order for the growth chart, then email [donna@donnabrunet.com](mailto:donna@donnabrunet.com) with your requested 5"x7" print and coupon code within 24 hours.

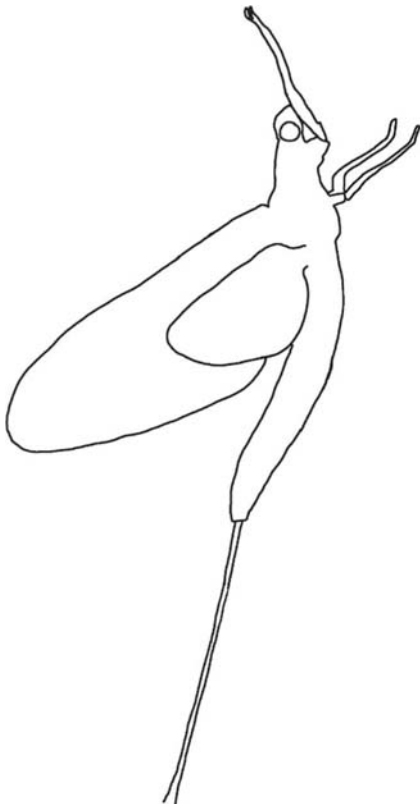
Mention Coupon Code: FIREFLY

Your print will be shipped with your growth chart.

Most insects can fold their wings flat along their bodies.

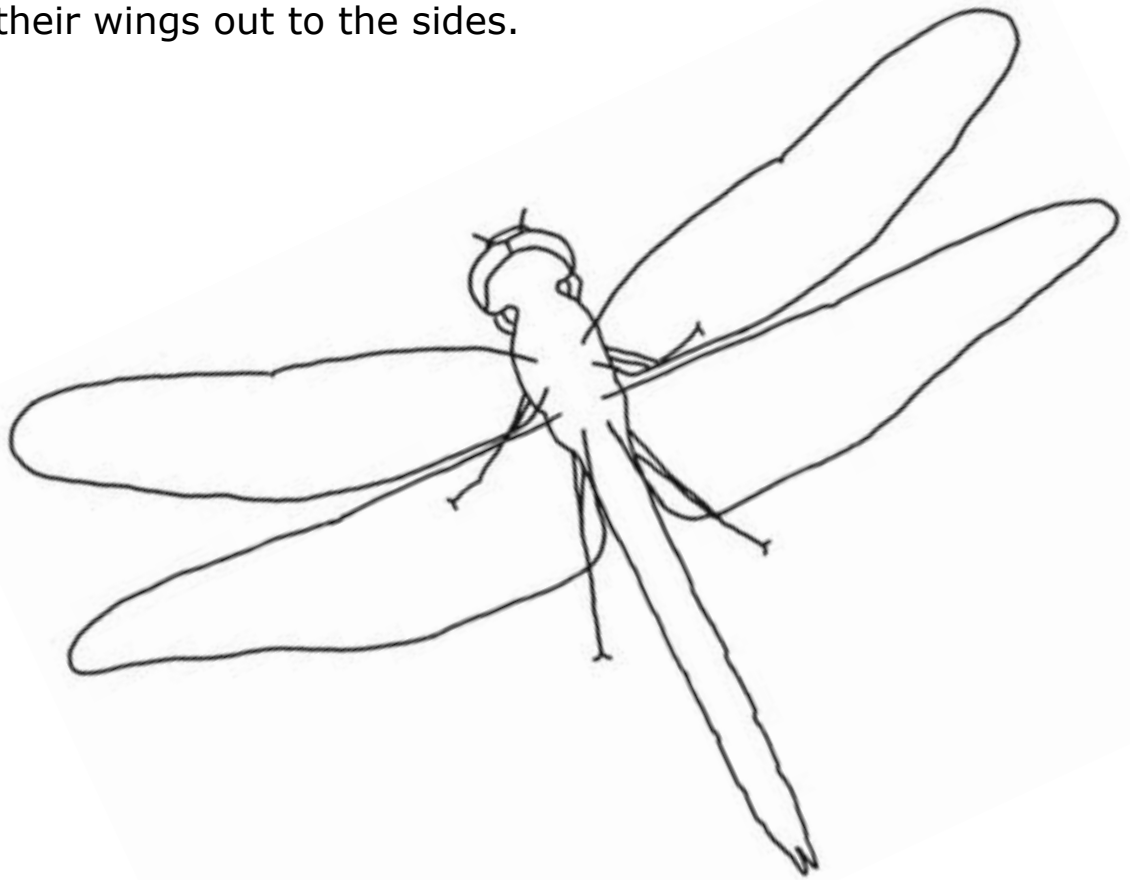


A few insects can't fold their wings.

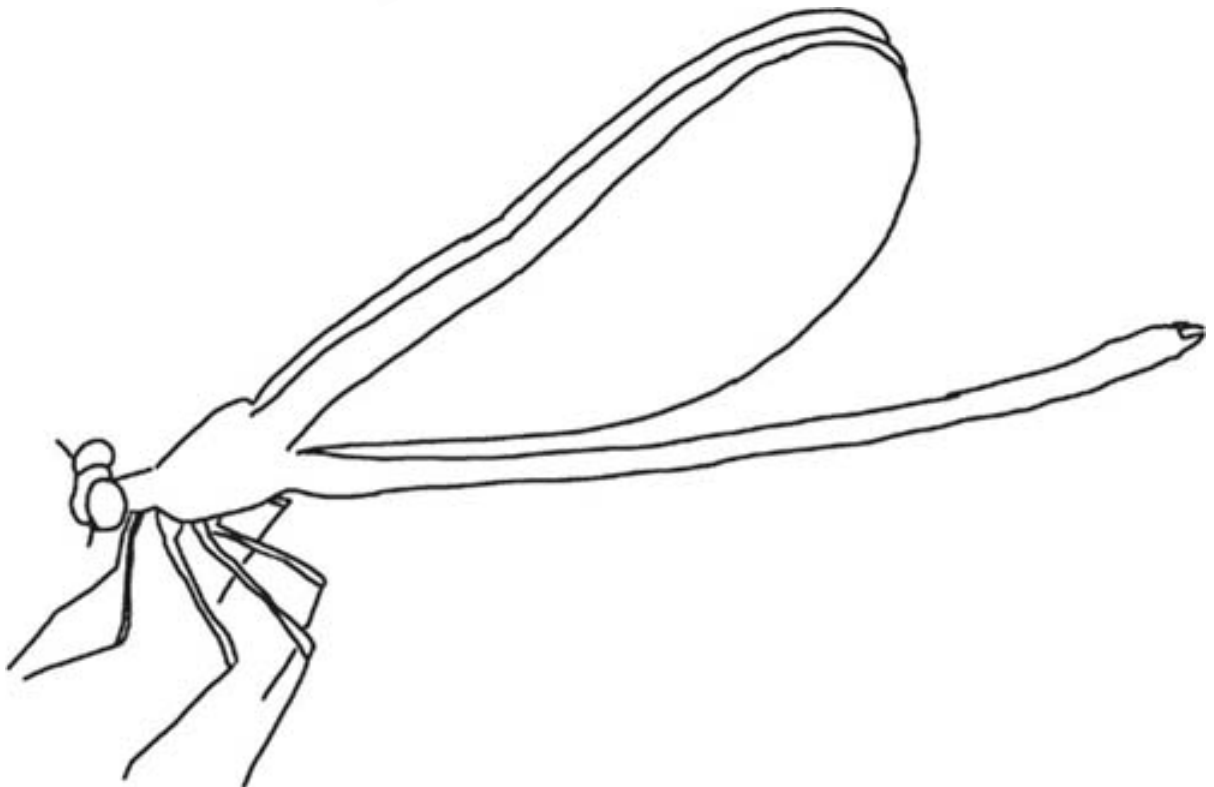


Mayflies hold their wings folded together away from their bodies.

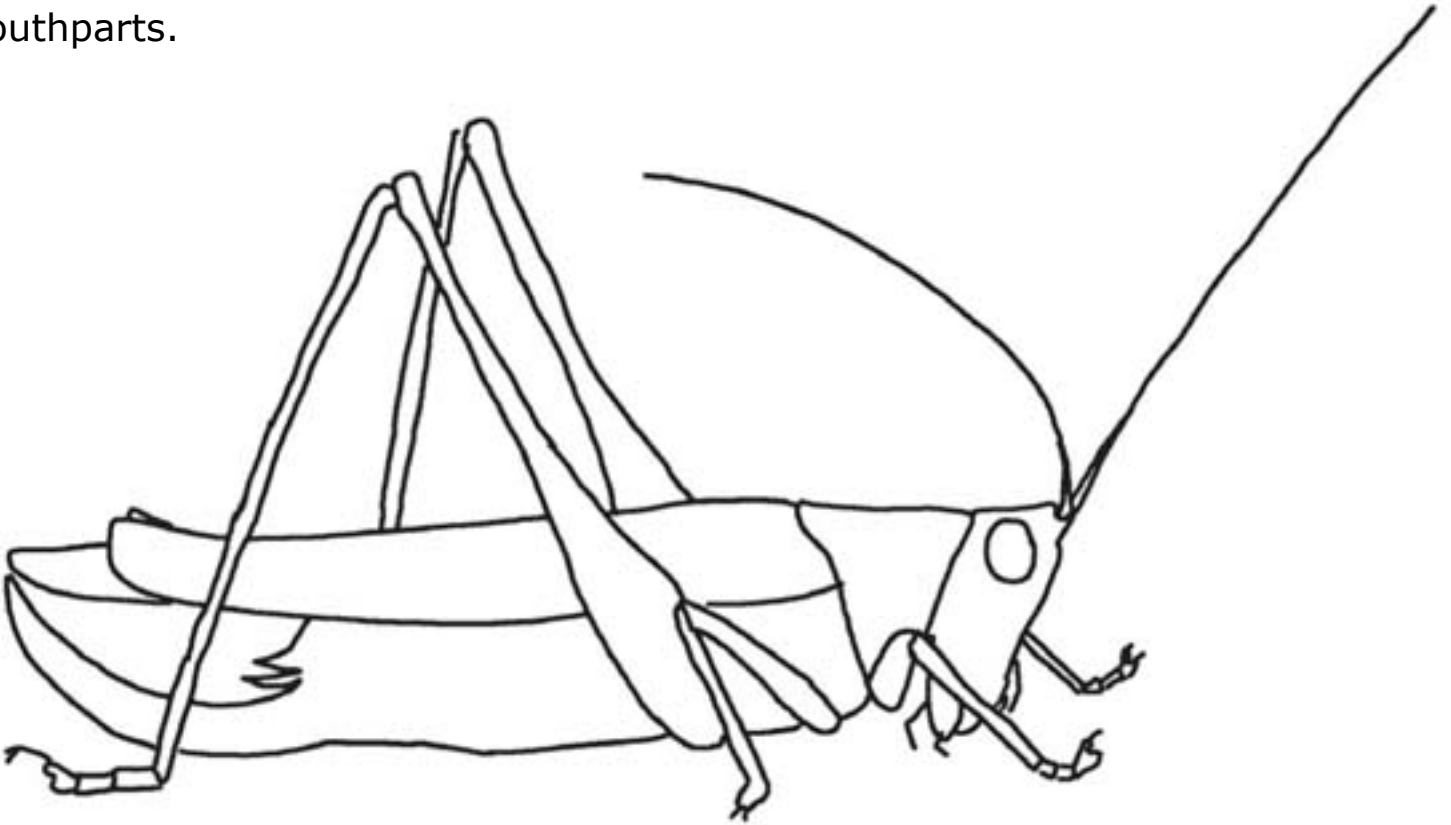
Dragonflies hold their wings out to the sides.



Damselflies are in the same order as dragonflies. Most hold their wings folded together over their abdomen; a few hold their wings slightly open in a "V."

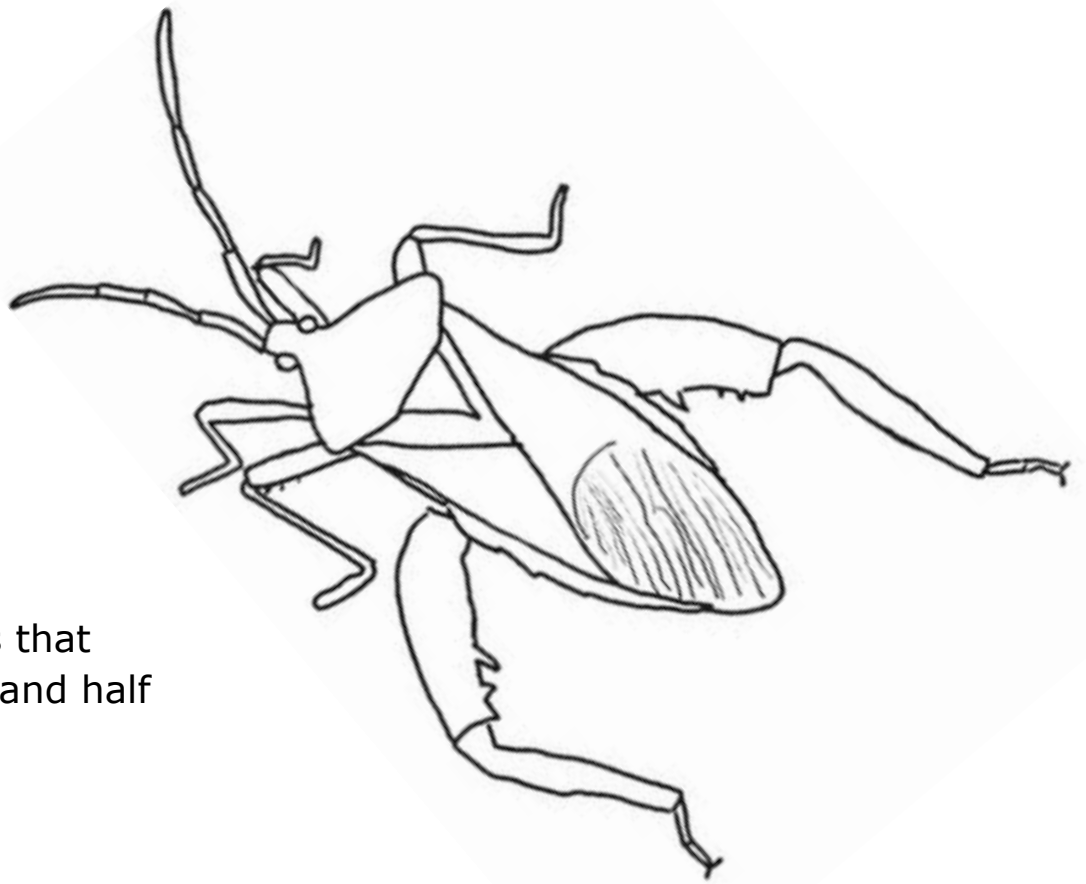


Grasshoppers have hind legs adapted for jumping. They have chewing mouthparts.



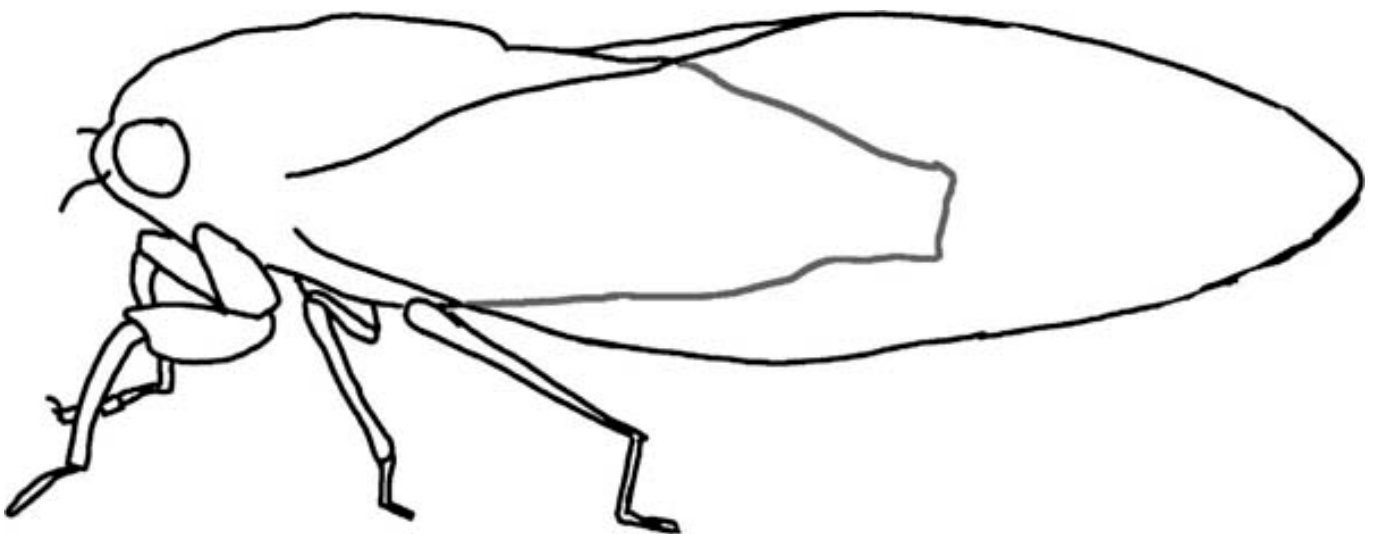
Mantids have front legs adapted for grabbing other insects for food.



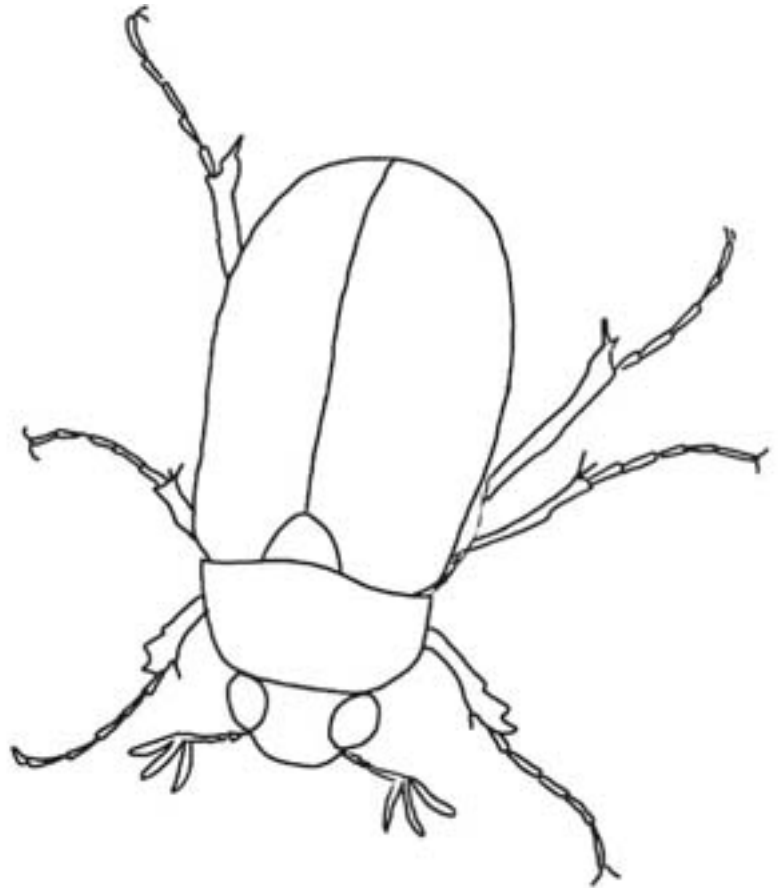
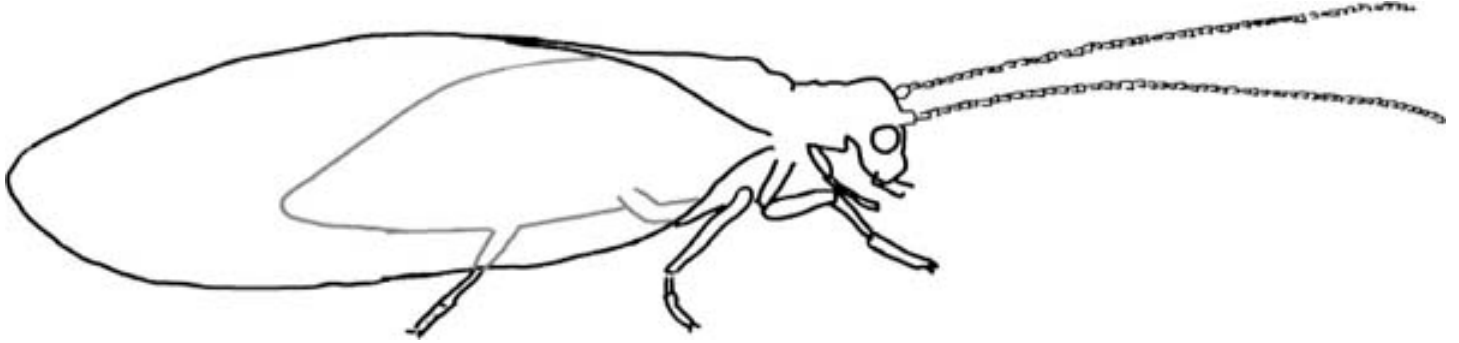


Bugs have front wings that are half membranous and half thickened.

Cicadas have clear wings that they hold roof-like over their bodies and beaks designed for sucking up liquids. Leafhoppers and planthoppers are in the same order as cicadas. Their wings are frequently patterned rather than clear but also hold their wings roof-like over their bodies and suck up plant juices through a beak.

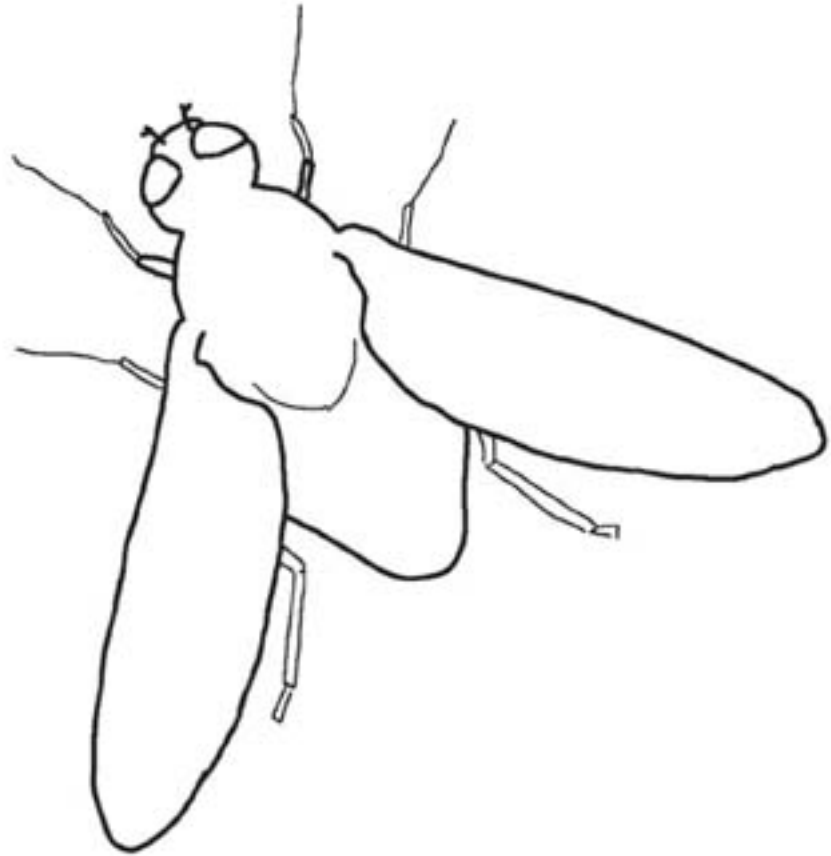


Like cicadas, Lacewings have clear wings held roof-like over their bodies, but they have mouths designed for chewing.

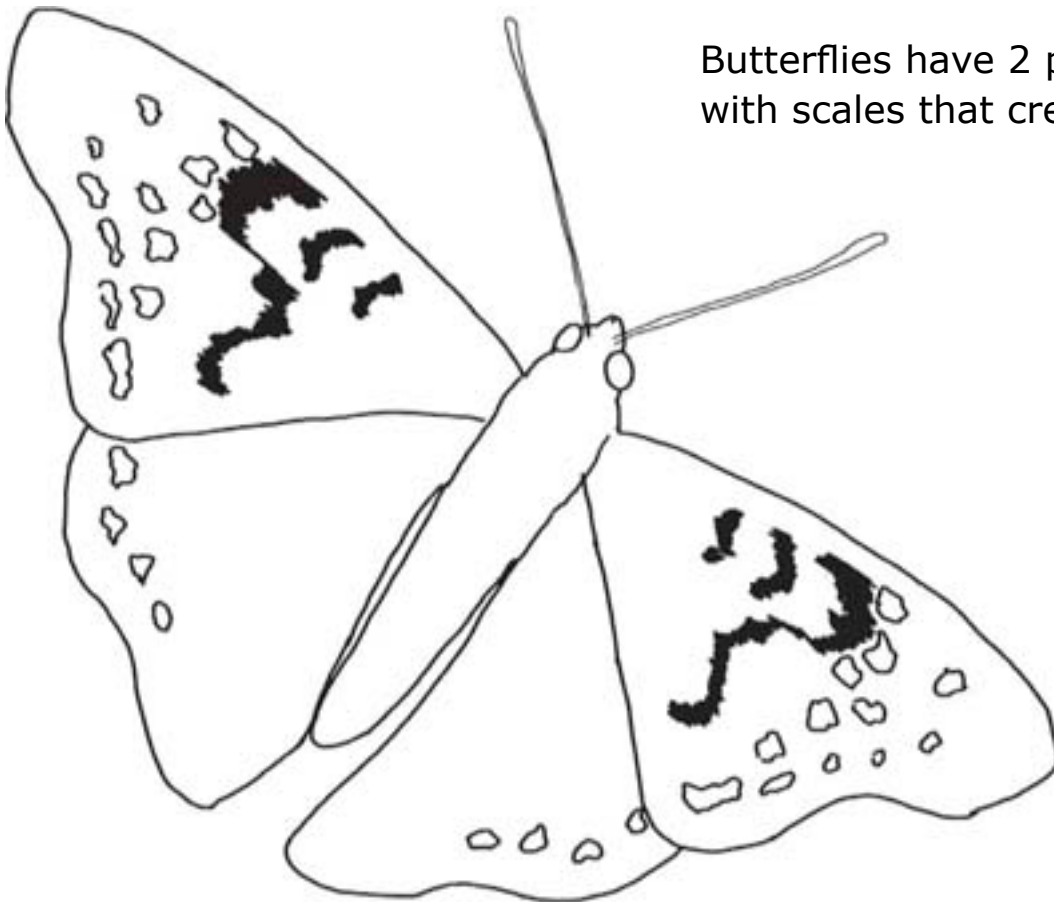


The front pair of a Beetle's wings are thick and hard and meet in a line down the center of the back. Their hind wings are membranous and folded under the front wings.

Flies have 1 pair of wings Butterflies have 2 pairs of wings covered with scales that create colorful patterns.

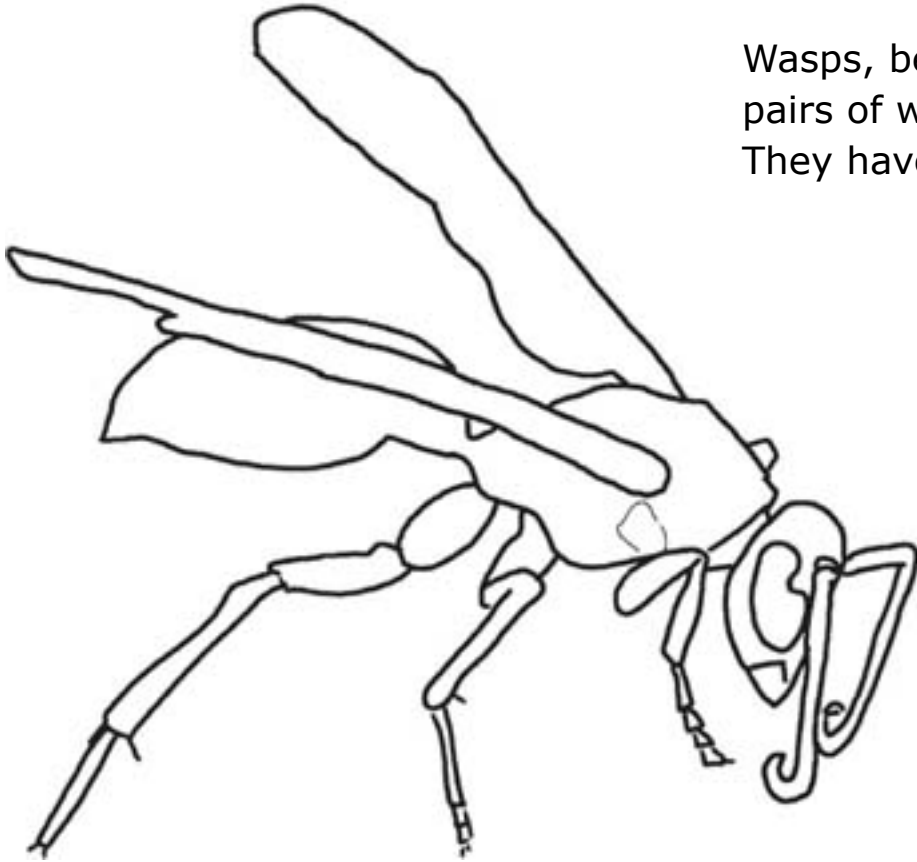


Butterflies have 2 pairs of wings covered with scales that create colorful patterns.





Wasps, bees and ants have either 2 pairs of wings, or don't have wings. They have chewing mouthparts.



Coming soon: a glossy magazine on insect identification containing more detailed information and featuring a selection of my images. This new publication will help you learn how to identify insects to family rather than order or suborder like this short brochure.

If you would like to be informed when this magazine is available, send an email to [donna@donnabrunet.com](mailto:donna@donnabrunet.com).



Termites

If you are trying to decide whether the insects you are viewing in your yard are termites or ants with wings, take a look at my page describing the ways to correctly identify members of the two groups.

illustrations and text copyrighted Donna Brunet. All rights reserved.

**DONNA BRUNET**  
*macro photography*



[donna@donnabrunet.com](mailto:donna@donnabrunet.com)  
<http://donnabrunet.com>

street address:  
106 Orr Street  
Columbia, Missouri 65201

mailing address:  
P.O. Box 7482  
Columbia, MO 65205