



## Backyard Insects

A Field Guide

Name: \_\_\_\_\_

### How To Use This Book

This field guide will help you identify some of the insects you may find in your backyard. First, you need to find a bug. Then, starting on the first page, answer the questions and follow the directions given in the prompts. These prompts will help you use the unique features of your insect to identify it. Use the "Field Notes" section at the end of the book to record the bugs you find!

Insect identification can be tricky, and you may not get it right the first time. That's okay! Just start again at the beginning, and make sure you answered each question correctly.

If you still can't find your bug, it could be that it's not in this book! Try going to [knowyourinsects.org](http://knowyourinsects.org) or a similar website for a more extensive identification key.

### What is an Insect?

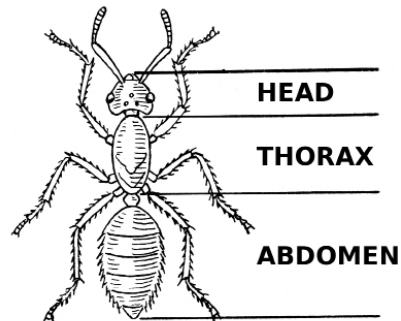
1

All insects have

- Three main body parts (see diagram)
- Six legs

Most insects have

- Antennae
- Wings



Check to see if your organism has the first two characteristics, at least. If it doesn't, it is not an insect! Flip to page 12 to look at some common non-insects. If it is an insect, flip to page 3 to continue.

2

### Does your insect have wings?

If your insect *has* wings, turn to page 3.

If your insect *does not* have wings, turn to page 13.

Look closely at your insect. How many pairs of wings does it have?

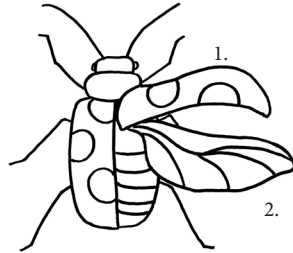
3

If your insect has *one pair* of wings, turn to page 14.

If your insect has *two pairs* of wings, turn to page 4.

If you can't tell, turn to page 4.

*If your insect has a split down the center of its "shell", it actually has two pairs of wings: A hard outer wing (1) and an underwing (2).*



Does one pair of wings have a different structure than the other (i.e. one is hard and shell-like, and the other is thin and translucent)?

4

If each pair of your insect's wings has a different structure, turn to page 5.

If both pairs of your insect's wings look similar, turn to page 7.

Is your insect shaped like a shield, with long antennae?

5

If your insect is shield shaped, turn to page 15.

If this is not true of your insect, and it has more of an oval or elongated body, turn to page 6.

*This stink bug, for example, has a shield-like shape to its body.*



Does your insect have pincers on its abdomen?

6

If it *does* have pincers, turn to page 16.

If it *does not* have pincers, turn to page 17.



7

Look closely at your insect's legs. Is the last pair of legs noticeably thicker and longer than the others?

If this is *true* of your insect, turn to page 8.

If this is *not true* of your insect, turn to page 9.

8

Does your insect have long or short antennae?

If it has *short* antennae, flip to page 18.

If it has *long* antennae, flip to page 19.

9

Are your insect's wings its most prominent feature, and does it have a coiled mouth-part?

If both are *true* of your insect, turn to page 20.

If one or both are *not true*, turn to page 10.

10

Does your insect have a fuzzy body and black and yellow coloration?

If this is *true* of your insect, turn to page 21.

If this is *not true*, turn to page 11.

When resting, do your insect's wings stick out to the side of its body like the wings of a plane, or are they held against its body and slanted downward, forming a tent-like shape?

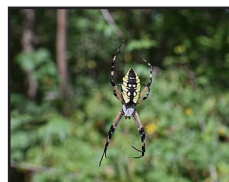
If your insect's wings stick out from its side, turn to page 22.

If your insect's wings are held in a tent-shape, turn to page 23.



*This cicada's wings come together to form a tent shape.*

Common Non-Insects



All spiders, like the Black and Yellow Garden Spider (left) or a jumping spider (right)



Centipede



Pill bug, Roly Poly, or Sow bug



Millipede

Ants



Pavement Ants are reddish-brown and can be found on sidewalks and driveways.



Carpenter Ants are much larger and mostly black.



Common Garden Ants are small and black.

*If you know the insect in front of you is not an ant, look closely at it again for wings. They may be hidden and folded underneath a "shell" (like a ladybug). If this seems to be the case, turn to page 3.*

Flies



Crane Flies look like giant mosquitoes but are actually harmless.



House Flies have black bodies.



Green Bottle Flies are slightly larger than houseflies and have iridescent green bodies.

## Brown Marmorated Stink Bug

15

Stink bugs are an invasive species in Michigan, originating in Eastern Asia. They eat fruit and vegetable crops, causing a lot of damage for farmers. The name “stink bug” comes from the scent they release when threatened.



## Earwig

16

Even though earwigs look quite scary, they don't generally attack humans—their pincer is used for defense. And, despite their name, it's just a myth that they crawl in your ears.



## Beetles

17

There are *many* different kinds of beetles. Here are just a few:



Longhorn Beetles, like this Banded Longhorn, have long, horn-like antennae.



Japanese Beetles are invasive.



Fireflies, like the Big Dipper Firefly.



Weevils, such as this Pale Green Weevil.

## Grasshopper

18

Grasshoppers, like the Spur-throated Grasshopper pictured here, are often found in fields and meadows. The Spur-throated Grasshopper is the most common grasshopper in the United States.



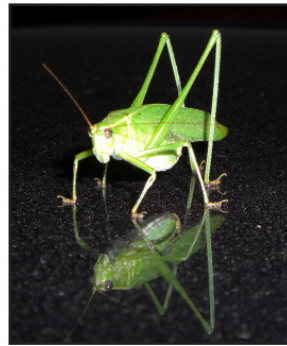
## Crickets and Katydid

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Crickets look similar to grasshoppers in many ways, but their antennae are much longer. Pictured here is a Field Cricket. You might also find House Crickets, which are lighter brown/tan.

Katydid also have very long antennae. They are usually bright green, and have rather flat, leaf-shaped bodies.



## Butterflies

20



Monarch Butterflies only lay their eggs on Milkweed plants, which are a native species in Michigan. They are poisonous to animals that try to eat them!



Cabbage White Butterflies are small with dark spots on their wings. Their caterpillars will eat broccoli and cabbage plants if they get in your garden.

## Bees

21



Bumblebees are larger and fluffier than honey bees, and don't die when they sting something. The name "bumblebee" actually refers to a group with 255 different species in it!

Honey Bees are pollinators. Flower pollen sticks to their hairy bodies and legs when they land and gets carried to other flowers as the bee travels.



## Dragonfly

22

The Blue Dasher is just one of many dragonflies you may find in Michigan. Dragonflies come in many patterns and colors, but are alike in all having a long abdomen and four, long wings. Dragonflies can be found by the water.



## Cicadas and Leafhoppers

23



Dog Day Cicadas are green (far left) and Periodical Cicadas are black with red eyes (page 11). Cicadas also leave behind molts (left) which you can find sticking to trees, walls, and other surfaces.

Leafhoppers, like the Green Leafhopper (far right) and Candy Striped Leafhopper (right), are much smaller than cicadas (0.10-0.25 in).



Field Notes

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