

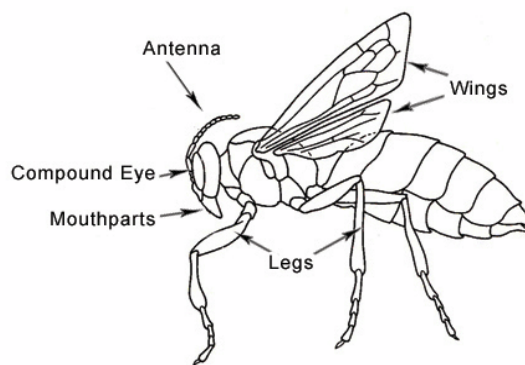
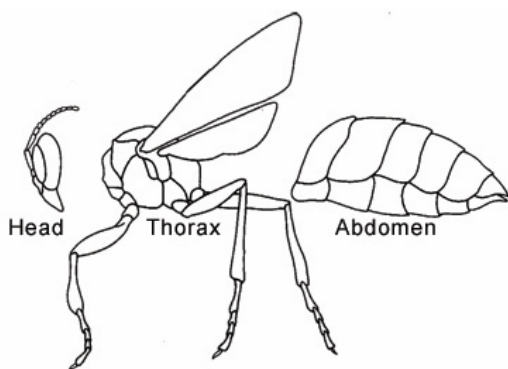
# Gardening Basics

## How to Identify Bugs

This guide can help you with identifying adult or mature 'bugs', but it is pretty difficult to identify immature ones. Let's briefly review the basic identifying characteristics of what we commonly call 'bugs' - insects, spiders, centipedes, and millipedes - all of which are common around our homes and gardens.

### Insects **Class: Insecta**

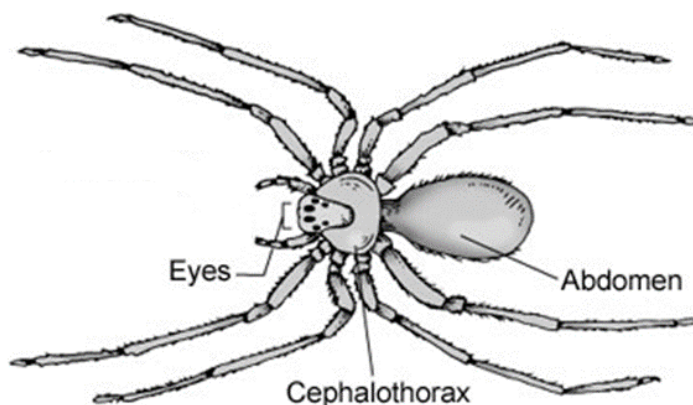
- Have 3 distinct body regions: head, thorax (chest), and abdomen
- Have 6 jointed legs that come from the thorax
- Many have wings but not all
- Most have two compound eyes
- Most have antennae or feelers



*Purdue University Extension Entomology*

### Spiders **Class: Arachnida**

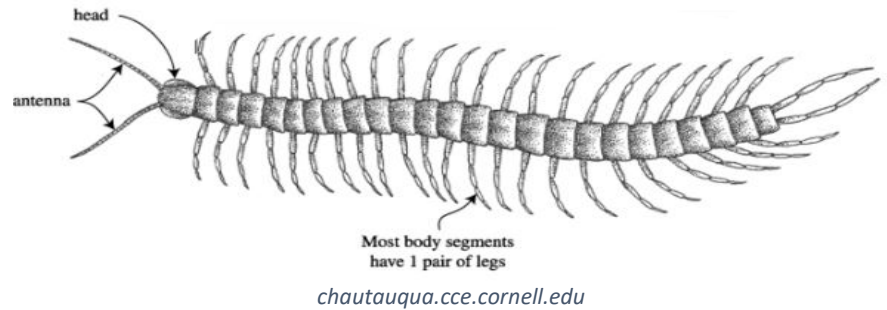
- Have 2 regions of the body: the front called the cephalothorax and the abdomen
- Have four pairs of walking legs on each side of the cephalothorax in adult arachnids
- Most have eight eyes
- Have no wings or antennae



*University of Missouri Extension*

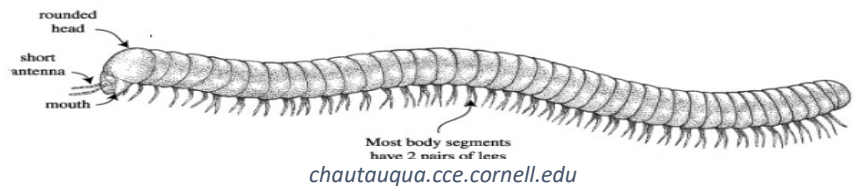
## Centipedes Class: Chilopoda

- Have a distinct head
- The body is a series of segments, relatively flat in shape in cross-section
- Each segment generally has 1 pair of walking legs
- Have antennae and a pair of poison fangs
- Generally found in out of the way places such as under logs or rocks



## Millipedes Class: Diplopoda

- Have a distinct head
- The body is a series of segments, relatively round in shape in cross-section
- Each segment generally has 2 pairs of walking legs
- Have antennae but no fangs



## Checklist for Help Desk

Keeping these basic characteristics in mind, here is a checklist of information the DCMGA Garden Help Desk needs to assist you in identifying common garden pests. If possible, when taking photos place insects or plant material on plain white paper. Email us the information and photos to: [master.gardener@dentoncounty.gov](mailto:master.gardener@dentoncounty.gov)

### Photos that show

- Number of body sections and shape
- Size relative to a common object like a coin if possible
- Top and underside if possible
- How many legs, antennae, or feelers if present?
- Wings, if present, and color
- Mouthparts/shape, e.g., jaw-like chewing mouth or sucking tube or sword-like structure
- Pictures of any damage done by this pest, e.g. plant leaves, branches, trunk, flowers, clothing Please include when the pictures were taken – date, time of day and the weather conditions
- How many of these pests did you see?
- Location of the pests:
  - City or rural location
  - In a garden, on vegetable or ornamental plants? Wooded or marshy area? Standing water nearby?
  - Was it on a plant – what type and where: on leaves, branches, trunk, flowers, the soil under the plant?
  - If not on a plant, was it outside or inside your home, where exactly?
- Other helpful information:
  - Has the soil nearby been disturbed lately, e.g., digging, construction, severe rain?
  - Was a possible new habitat brought in such as mulch, topsoil, new plants (what type), or packaging from other products?

- What other evidence of infestation did you find, e.g., castings (insect poop), webbing, mounds, honeydew (sticky, sugar-laden fluid), black sooty mold, foamy spittle, or frass (sawdust-like insect waste)? A picture of this evidence is helpful.
- Why are you interested in identifying the pest – damage to plants or property, biting or stinging, control recommendations, etc.

## Resources

BugGuide, Iowa State University, Department of Plant Pathology, Entomology, and Microbiology, (accessed 7 July 2024), <https://bugguide.net/node/view/15740>

“Emerald Ash Borer Lookalikes”, University of Nebraska,-Lincoln Extension, et al, (accessed 7 July 2024), <https://entomology.unl.edu/eablookalikes.pdf>

Insect ID Form, Ask An Entomologist, Texas A&M AgriLife Extension, (accessed 7 July 2024), <https://askanentomologist.tamu.edu/insect-id-form/>

To fill out the form be prepared to have the answers to all the questions listed above as well as pictures to upload. This service may require a fee.

“Insect Identification”, Insect Identification for the Casual Observer, (accessed 7 July 2024), <https://www.insectidentification.org/>

“Insect Identification: Experts and Guides to ID That Bug You Found”, et: entomology today, Entomological Society of America, 23 July 2018, (accessed 7 July 2024), <https://entomologytoday.org/2018/07/03/insect-identification-experts-guides-bug-spider-arachnid-entomology/>

Insects in the City, Texas A&M AgriLife Extension, (accessed 7 July 2024), <https://citybugs.tamu.edu/>

“What bug is this?”, Amateur Entomologists’ Society, 1 January 2020, (accessed 7 July 2024), <https://www.amentsoc.org/insects/what-bug-is-this/>

“The Texas Insects Most Commonly Submitted for Identification”, Texas A&M AgriLife Extension, (accessed 7 July 2024), <https://texashighplainsinsects.net>

“Unwanted Guests”, podcast, Texas A&M AgriLife Extension, (accessed 7 July 2024), <https://agrilifeextension.tamu.edu/asset-local/unwanted-guests/>

Xanthe Shirley, “Asian Giant Hornet Look-alikes 101”, USDA, Texas A&M University Entomology, (accessed 7 July 2024), <https://txbeeinspection.tamu.edu/files/2020/05/Asian-Giant-Hornet-Look-alikes-101-Xanthe-Shirley.pdf>

## Social Media

There are many insect ID forums on social media outlets, such as Facebook and X (Twitter), where you may ask questions, but please realize the information you receive may not be from an expert.

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