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ABOUT THIS GUIDE

Each section of this guide highlights a different group of insects or spiders commonly found in midwestern gardens. While this is not an exhaustive list of insects, it is intended to spark your curiosity to find examples in your garden. In the references, we provide suggestions for other sources of identification information. Taking a photo and posting it to iNaturalist is also a good way to get your species identified.

YOUR MIDWESTERN NATIVE GARDEN

Native plant gardens attract a host of native and non-native wildlife. Most of the images in this guide were captured in and around the Chicago area and were supplied by local gardeners and nature enthusiasts, just like you! Gardens change throughout the day and over the course of the season; be sure to note how your garden changes week to week.



MILKWEED & OTHER POLLINATOR FRIENDLY NATIVE PLANTS

The term "native plant" refers to plants that evolved along with the landscape over thousands of years. These plants have unique relationships with local wildlife and some, like milkweed, are host species, meaning they are the only food source for part of the insect's life. Milkweed plants are the host species for monarch butterfly caterpillars. If you have milkweed in your garden, consider reporting your sightings to our Monarch Community Science Project (bit.ly/monarchmonitors). Milkweed is also home to a wide range of other species. See if you can spot them this year!





Aphis nerii Oleander aphid



Danaus plexippus (L)

Monarch butterfly

2



B Euchaetes egle Milkweed tussock caterpillar



Labidomera clivicollis
Swamp milkweed leaf beetle



Lygaeus kalmii Small milkweed bug



Oncopeltus fasciatus (A)
Large milkweed bug



Tetraopes tetrophthalmus
Milkweed beetle

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COMMON INSECT POLLINATORS

About 80% of all flowering plants, including 35% of worldwide food crops, are pollinated by animals and insects. Some plants and animals have coevolved over millions of years, which means they cannot exist without each other. Pollination is a critical part of how plants reproduce and make more of themselves. Unlike humans, plants are stuck in one place. They use flowers to attract bees and other pollinators—like butterflies, beetles, bats, and birds—to feast on their nectar (carbohydrates) and pollen (protein).

When an insect interacts with the reproductive parts of a flower, they typically get covered in pollen. They then end up leaving some of this pollen either on different parts of the same flower, or on other flowers they visit for food throughout the day. Either way, pollen grains then get deposited on the female parts of flowers, fertilizing them. This allows the flower to eventually bear fruit that contains seeds, continuing the plant's life cycle.

BEES

There are approximately 4,000 native bee species in the United States, most of which are solitary and without stingers. Honey bees, although common pollinators, are non-native. Europeans brought them to North America in the 17th Century.



Andrena distans (M)
Cranesbill miner bee



Apis mellifera (F)
Western honey bee



10 Bombus impatiens
Common eastern bumblebee



11 Lasioglossum dialictus (F)
Metallic sweat bee



12 Melissodes bimaculatus (M)
Two-spotted longhorn bee



13 Melissodes sp. Long-horned bee



14 Xylocopa virginica
Eastern carpenter bee

BUTTERFLIES

There are more than 750 species of butterflies in the U.S. Aside from their role as pollinators, they are indicators of a healthy environment since they are sensitive to habitat and climate changes.



15 Cupido comyntas
Eastern tail blue butterfly



16 Papilio polyxenes (A)
Black swallowtail



17 Phyciodes tharos
Pearl crescent butterfly

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continuation of COMMON INSECT POLLINATORS

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FLIES

There are over 110,000 species of Diptera, or True Flies, in the world. They are an incredibly diverse group that come in all shapes and sizes, and many mimic other insect species. After bees, they are the most important group of pollinators.



Bombylius sp. (F) Bee fly



Lucilia sericata Common green bottle fly



Rhingia nasica American snout fly

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LADY BEETLES

There are almost 450 species of lady beetles, or lady bugs, in North America. As larvae and adults they feed on plants, but they are also incredible predators of aphids and mites-an adult ladybug eats as many as 5,000 aphids in its lifetime!



21 Coccinella septempunctata Seven-spotted lady beetle



22 Cycloneda munda Red polished lady beetle



Harmonia axyridis (A) Asian lady beetle

WASPS

There are almost 13,000 species of wasps in the U.S. and Canada. In addition to being pollinators, wasps play an important ecosystem role as natural pest control.



Vespula malucifrons 24 Eastern yellow jacket



Polistes fuscatus Dark paper wasp



Sphex pensylvanicus Great black digger wasp

MOTHS

While moths and butterflies belong to the same order, Lepidoptera, moths account for over 90% of Lepidoptera species. Moths are important night-time pollinators, but some species are also active during the day, including all three species pictured here.



27 Atteva aurea Alianthus webworm moth



Cisseps fulvicollis Yellow-collared scape moth



29 Hemaris diffinis Snowberry clearwing

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COMMON MIMICS

Many insects pretend to be something else. Plant mimics will often look like leaves, sticks or flowers while animal mimics could pretend to be snakes, butterflies, ants, bees, wasps or even bird poop! The two most common reasons are to avoid being seen and eaten, or for a predator to hide so that potential prey does not notice it.

Some crab spiders change colors depending on the flower they are on! But mimicry is not just looks—it can also be behavior. Certain katydids mimic female cicada wing clicks to attract males hoping to mate; instead, they end up as food. Various firefly species mimic the blink patterns of other firefly females to lure unsuspecting males to their doom.

ANIMAL MIMICS (mimics in the left column below)



Eristalis transversa Transverse-banded flower fly



Apis mellifera European honey bee



Spilomyia fusca

Bald-faced hornet fly

33 Limenitis archippus Viceroy

36



Danaus plexippus Monarch butterfly



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Dolichovespula maculata Bald-faced hornet queen

38

PLANT MIMICS



Diapheromera femorata Northern walkingsticks (mimicking a branch)



Microcentrum rhombifolium Broad-winged katydid (mimicking a leaf)



Misumenoides formosipes White-banded crab spider (mimicking a flower)

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OTHER INSECTS AND SPIDERS

Insects and spiders are among the largest and most diverse groups of living organisms on Earth. Spiders are also one of the oldest groups of species, dating back nearly 380 million years.

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This section provides a brief introduction to some of the species

that we have seen in midwestern gardens. Use the links below to learn about other insects and spiders that you might find!



39 Formica sp. Formica ant



Grapocephala coccinea Candy-striped leafhopper



Lestes rectangularis Slender spreadwing



Magicicada septendecim Pharaoh cicada



Megacyllene robiniae Locust borer



Melanoplus bivittatus Two-stripped grasshopper



45 Mecaphesa sp. Yellow crab spider



46 Pardosa sp. Wolf spider



Photuris sp. Firefly



Popillia japonica Japanese beetle



49 Syrphid fly larva



Tenodera aridifolia sinensis Chinese praying mantis

*Eristalis transversa Transverse-banded flower fly

RESOURCES

Field Museum Field Guides

- 1. Beginner's Guide to Moths of the Midwest Macromoths
- 2. Beginner's Guide to Moths of the Midwest Micromoths
- 3. Beginner's Guide to Moths of the Midwest Geometers
- 4. Beginner's Guide to Moths of the Midwest Owlets
- 5. Beginner's Guide to Moths of the Midwest Tortricids
- 6. Beginner's Guide to Moths of the Midwest Crambids & Pyralids

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- 7. Creating monarch habitat in your Midwestern garden
- 8. Flies of Illinois
- 9. Wasps of Illinois
- 10. Common Wild Bee Genera of Illinois
- 11. Common Butterflies of the Chicago Region
- 12. Common Spiders of the Chicago Region

Websites

- 1. beespotter.org
 - 3. bugguide.net
- 2. inaturalist.org
- 4. www.lostladybug.org/