



Backyard Biodiversity

# Identifying pollinators: US East

**You probably know that bees are pollinators, but did you know there are other creatures that do the same job?**

**Read on to learn about the differences between these pollinators, the insects that resemble pollinators, as well as the different species you might be able to spot in your own pollinator habitat.**



**POLLINATOR  
PARTNERSHIP**

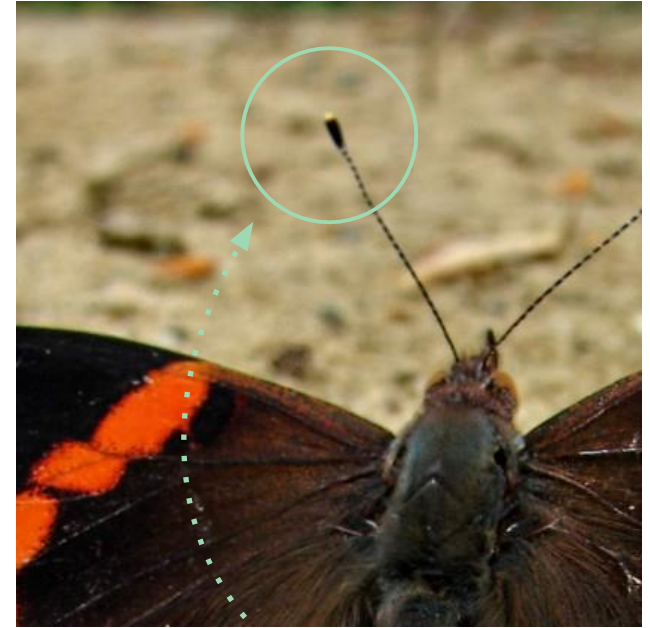
# What's the difference between a moth and a butterfly?

Moths and butterflies are both pollinators, but telling the difference can sometimes be tricky. Generally, butterflies fly during the day while moths fly at night. However, some moths are more closely related to butterflies than other moths and fly during the day like butterflies.

The most reliable way to tell a moth apart from a butterfly is to look at the shape and style of their antennae. Butterflies have antennae that are clubbed, with a small bulb at the end of a skinny shaft, while moths have feathery or comb-like antennae that taper to a point at the end. Note the narrow, clubbed antennae of the butterfly, compared to the wider, feathery antennae of the moth.



**Moth: feathery or comb-like antennae**



**Butterflies: clubbed antennae, with a small bulb at the end of a skinny shaft**

# Is it a bee, fly, or wasp?

Some insects that you see visiting flowers are what are known as bee mimics. While they may resemble bees in appearance, they are actually entirely different types of insects. Some, but not all, of these bee mimics are pollinators that aid in the reproduction of plants.

Flies and wasps are common bee mimics. A fly has only two wings, while a bee has four. Flies have sucking mouthparts, not the jaws of a bee, and their antennae are not long and slender like a bee, but short and stubby or feathery. Some flies are easy to spot because their eyes meet in the center at the top of the head.

A wasp has four wings, chewing mouthparts, a sting, and long antennae like a bee. Wasps are smooth and almost hairless, while bees are generally covered with hair on their bodies and legs. Wasps have slender waists and they will never have pollen-carrying hairs. Certain wasps make paper nests that hang from a tree or building, bees do not.

A final clue: if an insect is eating another insect, it may be a fly or a wasp. Bees are vegetarians and only eat pollen and nectar from flowers!

# Spot the difference

## Bees

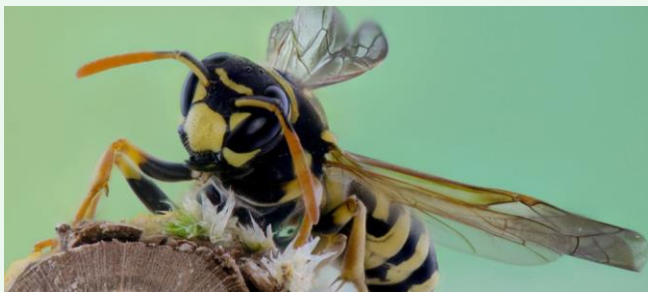
## Wasps

## Flies

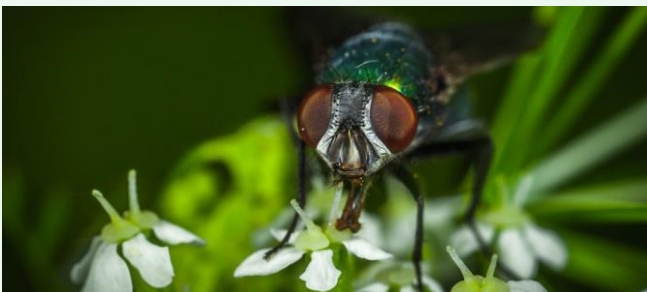
### Mouth



Jaws



Jaws



Suckers

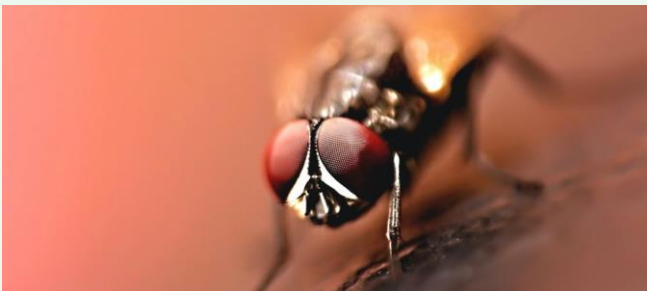
### Body and legs



Hairs for carrying pollen on body and legs



Smooth, almost hairless, with slender waist



Dark body

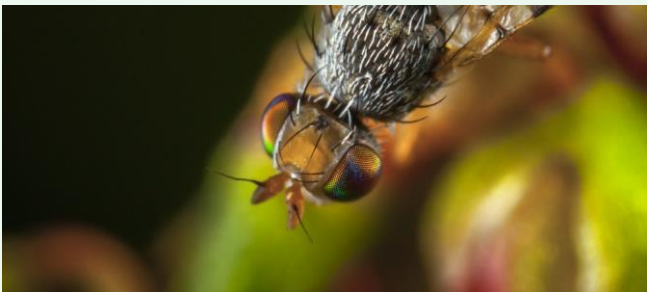
### Antennae



Long and slender



Long and slender



Short, stubby or feathery

# Pollinator guide – US East

Hopefully you now understand the difference between the types of pollinators and those that simply look like pollinators. The list below highlights the most common bees and other pollinators found in your region. Are you able to spot any at home?



## Mining bee

### Notes

Black body with black, yellow, and sometimes rust-colored hair on most of body. Pollen carried on hairy back legs.

### Common nesting locations

Solitary ground nests, often in sandy soils.

### Other ID features

Short, velvety hairs between eyes and antennae.



## Honey bee

### Notes

Light to dark brown body with pale and dark hairs in bands on abdomen. Abdomen barrel-shaped. Head heart-shaped.

### Common nesting locations

Human-made hives, in the open, and in cavities.

### Other ID features

Hairy eyes.



## Sweat bee

### Notes

Found in two forms: bright metallic green or black/brown with light bands of hair on abdomen. Pollen-carrying hairs on rear legs. Slender body.

### Common nesting locations

Solitary to communal nesters, in soil.

### Fun fact

Sweat bees are attracted to human sweat, which provides important moisture and salts. If one lands on you on a hot day, don't worry – they are not aggressive!

# Pollinator guide – US East



## Red Admiral

### Notes

Dark-colored body with wingspan of 4.5-7.5cm). Black wings with bold orange band and white spots toward the tips of wings.

### Common nesting locations

Found in many types of habitat. Often lay eggs on nettle.

### Identifying behaviors

Sometimes drink sap from trees.



## Bumble bee

### Notes

Black body, covered with black and yellow hairs throughout. Pollen basket present. Robust body. Long face.

### Common nesting locations

Underground, often in old rodent burrows.

### Identifying behaviors

Usually active in cool, cloudy weather.

### Fun fact

Bumble bees can beat their wings 200 times per second – much faster than the human eye can detect!



## Mason bee

### Notes

Found in two forms: black body covered in pale hairs or dull metallic blue-green and less hairy. Pollen-carrying hairs beneath abdomen. Head as broad as thorax. Robust body.

### Common nesting locations

Solitary in pre-existing holes.

### Identifying behaviors

Use mud to line nests.



## Monarch butterfly

### Notes

Black body with wingspan of 8-10cm. Bright orange wings with black veins and white spots. Can be confused with the Viceroy butterfly.

### Common nesting locations

Lay eggs only on milkweed plants.

### Identifying behaviors

Migrates from Mexico up to Canada and back each year.

# Pollinator guide – US East



## Leaf-cutting bee

### Notes

Black body with light or dark hairs. Pollen-carrying hairs beneath abdomen. Head is as broad as the thorax with large mouthparts for cutting leaves.

### Common nesting locations

Solitary in pre-existing holes.

### Identifying behaviors

Cut circular pieces from leaves.



## Large Carpenter Bee

### Notes

Black body with light or dark hairs. Pollen-carrying hairs on rear legs. Similar body shape to bumble bee, but abdomen is shiny and mostly lacks hair. Round face.

### Common nesting locations

Nests burrowed into wood.

### Identifying behaviours

Fly fast and erratically.



## Small Carpenter Bee

### Notes

Dark blue-green and shiny. Appear hairless on all body segments. Pollen-carrying hairs on rear legs. Slender with shield-shaped abdomen.

### Common nesting locations

Solitary in twigs/stems.

### Other ID Features:

Pale yellow marks on face.



## Black Swallowtail

### Notes

Black body with wingspan of 7.5-10cm. Black wings with rows of yellow spots.

### Common nesting locations

Lay eggs on plants in the carrot family (Apiaceae).

### Other ID Features:

Caterpillars are black and spiny early on and then green and black striped as they grow.

# Native pollinator plants

If you would like to see more bees and butterflies in your outside space, try planting a variety of these native pollinator plants!



|        |        |           |             |           |          |               |            |           |                |
|--------|--------|-----------|-------------|-----------|----------|---------------|------------|-----------|----------------|
|        |        |           |             |           |          |               |            |           |                |
| Genus  | Salix  | Vaccinium | Penstemon   | Asclepias | Monarda  | Pycnanthemum  | Helianthus | Solidago  | Symphyotrichum |
| Common | Willow | Blueberry | Beardtongue | Milkweed  | Bee Balm | Mountain Mint | Sunflower  | Goldenrod | American Aster |

Spring  
bloom

Summer  
bloom

Fall bloom

# Native plant nursery

Not sure where to start? Have a look at the following list of recommended plant nurseries.

- [American Meadows](#); VT
- [Ernst Conservation Seeds](#); PA
- [New Moon Nursery](#); NJ
- [North Creek Nurseries](#); PA
- [Roundstone Seed](#); KY

Plant nurseries are an ideal place to start.



# About Pollinator Partnership

Pollinator Partnership is the largest nonprofit in the world dedicated exclusively to the protection and promotion of pollinators and their ecosystems. Their mission is to promote the health of pollinators, critical to food and ecosystems, through conservation, education, and research. Please visit the [Pollinator Partnership website](#) to find out more and support their work. Thanks to Pollinator Partnership for their expertise in producing the AXA XL Backyard Biodiversity resources.

## Here’s what else you can discover in the AXA XL Backyard Biodiversity toolkit:



Learn about pollinators and the threats they face by visiting [Meet the pollinators](#).



Find out how to support pollinators and other native wildlife in [Growing plants for pollinators](#).



Discover how to create a buzz where you live by visiting the [Guide to bee hotels](#).

