

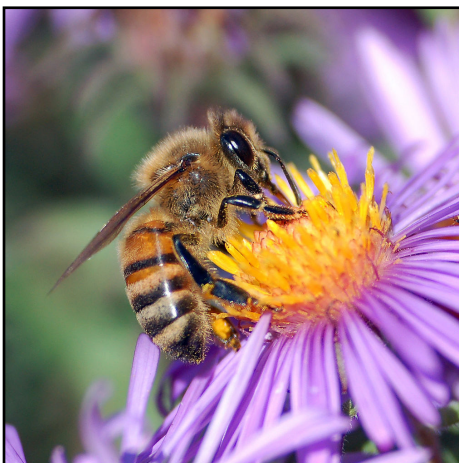


Pollinator Protection *Sting Guide*



Don't let a fear of getting stung keep you from helping these important critters!

It's true that some pollinator insects sting. And some insects that look like pollinators sting. There are even pollinators that look like they sting but don't. Aside from the pain stinging can cause, about 3% of the adult population (and 0.5% of children) is allergic to bee stings and at risk of possible systemic reactions, including anaphylactic shock. If someone is stung and experiences nausea, wheezing, or difficulty breathing, or if they are stung multiple times, they should seek immediate medical care. However, you're more likely to be struck by lightning than have a deadly reaction to bee stings. This guide breaks down who can sting and how aggressive they are so that it's easier to feel comfortable around these important insects.



Name: Honey bee (*Apis mellifera*)

Threat Level: Medium

Facts: Female worker honey bees, who are the ones out collecting pollen, can sting. While foraging away from the hive, they are pretty docile and won't sting unless they are provoked. Worker bees become more aggressive near their hive if they feel it is threatened. The hive's queen can sting, but she typically only stings potential rival queens. Male honey bees do not have a stinger, and they generally stay in the hive. Honey bees are not native to the United States and in many cases are actually less efficient pollinators than our native bees.



Name: Carpenter bee (*Xylocopa* spp.)

Threat Level: Low

Facts: Carpenters bees are one of the largest species of bee. Many male carpenter bee species do not have a stinger, but even if they do, carpenter bees - male or female - rarely sting. They will behave aggressively when threatened, but their behavior is mostly bluff. Carpenter bees are a very important pollinator species, but they can cause damage to wood structures.

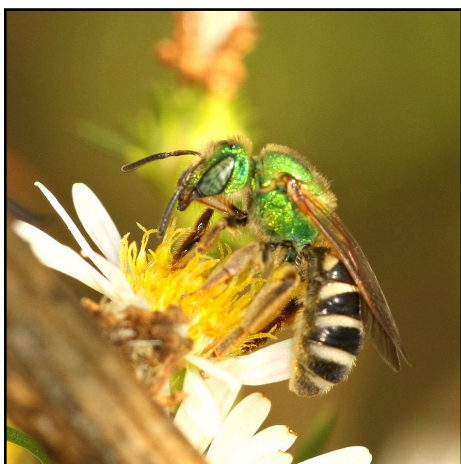
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Name: Common eastern bumblebee (*Bombus impatiens*)

Threat Level: Medium

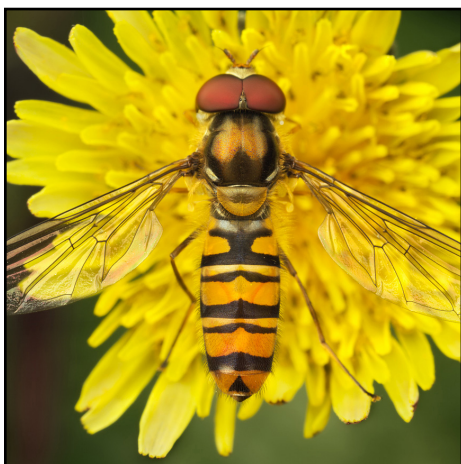
Facts: Like honey bees, this bumblebee will defend its colony by stinging, but they are not aggressive while out foraging for food. Not quite as big as a carpenter bee but larger than a honey bee, the common eastern bumblebee is a very important and active pollinator species. There are actually more than 40 species of bumblebee in North America, most of which are plump and fuzzy. In early 2017, the rusty patched bumblebee was the first bee to be listed as endangered in the United States. Habitat loss is a leading cause of their decline.



Name: Sweat bee (*Halictidae* spp.)

Threat Level: Low

Facts: Another species that is unlikely to sting unless it is harassed, sweat bees get their name because they are frequently attracted to sweat. Even when they do sting, the sensation is minor. The family has many species, most of which have a green or red metallic appearance. Sweat bees typically nest in the ground and are often mistaken for hoverflies.



Name: Hoverfly (many varieties)

Threat Level: Zero

Facts: While they look like bees, they are, in fact, flies. They pose no stinging threat, because they don't possess stingers. Hoverflies, as their name suggests, will often hover closely around people and can be a nuisance as a result. Nevertheless, hoverflies are important pollinators, second only to wild bees. Hoverflies are also beneficial to gardens, because many species prey on common garden pests like aphids.



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CLEAR CHOICES
CLEAN WATER
NATIVE PLANTS & POLLINATORS



Name: Yellowjacket (*Vespula maculifrons*)

Threat Level: High

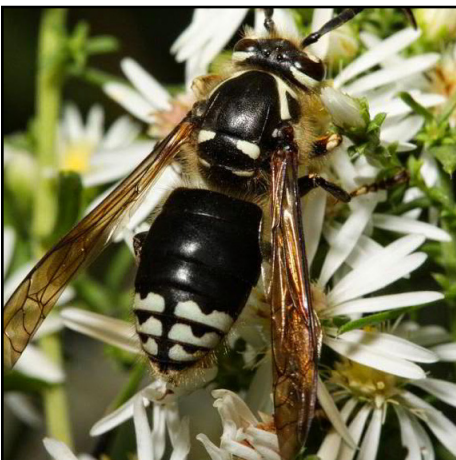
Facts: Yellowjackets build their nests in the ground and defend them vigorously. Even away from the nest, these insects are quick to sting. While they might look like bees, they are actually wasps. They do not have hairy bodies like bees, and they have the skinny waist common to wasps. Have you ever seen “bees” hanging out by a trash can? Those were probably yellowjackets. They can sometimes be found on garden plants eating garden pests like aphids, but they are not significant pollinators.



Name: Paper wasp (*Polistes* spp.)

Threat Level: Medium

Facts: There are several color variations of the paper wasp, which gets its name from the paper-like nest material it makes from chewed wood. Wasps in general might have a fearsome reputation, but paper wasps aren't all that bad. They will defend their nest, just like honey bees, but they are pretty peaceful garden visitors. Peaceful, unless you are a garden pest, which they prey on to feed their young. Adults feed mostly on nectar, and though they are not efficient pollinators, they do manage to contribute, particularly with milkweed.



Name: Bald-faced hornet (*Dolichovespula maculata*)

Threat Level: Medium

Facts: These insects are not actually hornets but wasps. Like paper wasps, they are not a big danger away from the nest. Near the nest, however, they are very aggressive and will swarm a threat, stinging repeatedly. They can also squirt venom from their stinger, aiming for the eyes. Bald-faced hornets prey on other insects, so they are often welcome garden pest managers. They will sip nectar but are not efficient pollinators.



Some less common bees you might see...



Name: Long-horned bee (*Melissodes bimaculata*)

Threat Level: Low

Facts: There are a number of “digger” bee species, and this long-horned bee is one you might see in your native plant garden. They are solitary and shy, and while there isn’t much information about their potential to sting, most people report them to be a pleasant visitor. Long-horned bees nest in the ground, but you might find them clinging to plants taking a nap.



Name: Squash bee (*Peponapis pruinosa*)

Threat Level: Zero

Facts: As its name suggests, this bee specializes in pollinating members of the squash (and gourd) family. Males are active in the morning when the flowers are open then sleep through the day inside the flower once it closes in the afternoon. Females are also active around the flowers until nesting season in early summer. Squash bees nest in the ground.

They pose no stinging threat, as they don’t possess stingers.



Name: European wool carder bee (*Anthidium manicatum*)

Threat Level: Low

Facts: This species is a relative newcomer to North America, having been introduced sometime prior to 1963. Males do not possess a stinger, but they do behave very aggressively around the nectar sources they choose to protect. Their aggression, while harmless to people, can maim or kill honey bees and native pollinators. The smaller female can sting, however they seem reluctant to do so. The name “carder” comes from the female’s habit of collecting plants fibers for her nest.