

# HONEY BEE or YELLOWJACKET WASP?

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Many people mistake yellowjacket wasps for honey bees. They are cousins but they have very different life styles and appearances.

## **In general:**

### **Wasps**

- Wasps are skinny and shiny (no noticeable hairs).
- Eat other insects (soft bodied caterpillars, and spiders) and are beneficial predators.
- Wasps are carnivores and may be attracted to meat at your picnic. They also are attracted to sweet soft drinks.

### **Bees**

- Bees are fatter, and appear fuzzy or hairy.
- Bees eat pollen and nectar from flowers and are beneficial pollinators.
- Bees do not eat meat and are not attracted to your picnic. They generally are not attracted to soft drinks.

## **Yellowjackets:**

- Yellowjackets are one type of wasp. They are yellow and black banded and shiny. They live in a social colony and the nest looks like a greyish paper carton.
- Yellowjackets usually nest underground in an abandoned rodent burrow and are readily seen flying in and out, especially if you run your lawn mower over the opening of the nest. If they are living in the wall of a house, you will not see the paper nest, but you will see them flying in and out.
- Yellowjackets have an annual colony, meaning the entire colony of wasps will die off after two hard frosts. Colony populations will range from a few dozen to a few hundred individuals. Only new queens survive the winter by hibernating underground. The queens will establish new nests in spring and will not reuse the old paper nest.
- Yellowjackets have a smooth stinger, which means they can sting multiple times, and do not die after stinging. There is no stinger left behind at the stinging site.
- Yellowjackets do not produce or store honey.

## **Honey bees:**

- Honey bees are one type of bee. They are orange-yellow, gray or brown and black banded, and fuzzy. They are also social and the nest is constructed of beeswax.
- Honey bees nest in a beehive, a cavity of a tree, or sometimes in the wall of a house, where they can be seen flying in and out. They do not nest in a hole in the ground.
- Honey bees form perennial colonies, meaning the entire colony of bees can survive the winter, clustering in the nest and producing heat by consuming stored honey. Honey bee colonies have much larger populations, often approaching 30,000+ individuals at the height of the summer season.
- Honey bees can sting only once and die after stinging. The stinger and poison sac are often seen left in the skin at the sting site.
- Honey bees are the only type of bee that collects large amounts of nectar and pollen from flowers to store in the nest, to use as food during the colder times of the year.

### **Honey bees or Yellowjackets in your home?**

If you have yellowjackets, rest assured they will be gone after two hard frosts. If they are not bothering you, ask yourself if you can live with them and appreciate them as beneficial predators. If you cannot live with them, you may need to exterminate them. If it is late summer or fall, keep in mind the colony has been growing there all season, and if they have not bothered you, they likely won't start. If you have a honey bee colony nesting in the wall of your house, ask yourself if you can live with them and appreciate that they are beneficial pollinators. If you cannot live with them, you will need to try to locate a willing beekeeper and contractor for removal options. In most cases, there is no easy or inexpensive solution to removing a honey bee colony from a house, as de-construction is necessary to open up the wall cavity to remove the bees and wax combs. If it has been determined that the honey bees must be removed, the best time to do so is often in late winter or early spring. The reason for this is that by that time of the year, the bee population is often at its lowest point, meaning fewer bees to deal with. Also, much of the stored honey will have been consumed by the bees over winter, so there will be less honey in the combs to deal with. Often the bee colony will die over the winter, usually due to insufficient population to maintain adequate temperature for the bees to survive; insufficient reserves of honey, so the colony starves to death over winter; or the colony succumbs to parasitic mites. In all of these cases, it is much easier to deal with the remaining bee less combs, as the bees will have perished, making removal much easier (no stinging insects to protect the nest!). To locate a beekeeper that may be able to help, contact the Vermont Beekeepers Association [www.vermontbeekeepers.org](http://www.vermontbeekeepers.org). It may be that a beekeeper cannot be located, or is unable to assist the homeowner due to the complexity of the removal operation. In these cases, an exterminator will have to be called to eliminate the colony before a contractor can be called in to open the wall and remove the nest. It is often not a good idea to just plug the entrance hole of an active honey bee colony in this type of situation. Once the bees can't get out and die in the wall, there will no longer be temperature regulation of the nest cavity. This in time may result in the melting of the honey comb, and the leakage of honey down into the wall, which will attract other insects and possibly rodents. There will also be developing brood or baby bees in the comb which will also die, leading to bad odors and attraction of other scavenger insects and pests.

**Home Building Materials:**

**Yellowjacket wasps** build a grayish-brown paper envelope around the nest, often made of wood fiber.

**Hornets** are another type of social wasp that builds their nest in a tree or other exposed area as opposed to yellowjacket wasps that normally put their paper nest underground or inside a cavity, or under the eaves of a roof. Hornet nests often are football or basketball shaped, constructed out of plant materials and look like paper Mache, with the single entrance hole located at the bottom end of the structure. These nests also will last until the first killing frosts, and then are usually destroyed by woodpeckers in search of the remaining undeveloped brood which they readily consume.

**Honey bees** make their nests out of wax secreted from glands in their abdomen. The nest does not have a greyish brown envelope around it, so if you can see the nest it would be surrounded by bees and you could see the whitish-yellow combs hanging vertically. It is highly unusual to see a honey bee colony in an exposed location, such as hanging from a tree branch. Honey bees prefer to nest in a hollow tree, a bee box or other manmade structure, never in the ground.

Honeybees compared to Yellow Jackets, Paper Wasps and Hornets				
	Honeybee	Yellow Jacket	Paper Wasp	Hornet
				
Color	Varies but generally amber to brown translucent alternating with black stripes; some are mostly black	Black and opaque bright yellow stripes	Dusty yellow to dark brown or black	Black and ivory white markings
Size	½ inch	½ inch	¾ to 1 inch	¾ inch
Legs	Not generally visible while flying; pollen baskets on rear legs can be seen while walking	Two long legs are visible hanging down during flight; no pollen baskets	Long, no pollen baskets	No pollen baskets
Behavior toward humans and animals	Gentle unless hive is threatened	Aggressive	Gentle	Aggressive
Preferred Food	Nectar and pollen from flowers	Other insects, overripe fruit, sugary drinks, human food, particularly meat	Other insects	Other insects
Stinger	Barbed, kills bee when used	Smooth, retracts and can be used indefinitely	Smooth, retracts and can be used indefinitely	Smooth, retracts and can be used indefinitely
Lives in	Large colonies of flat wax-based honeycomb hanging vertically	Ground, small cavities or semi-open structures	Small umbrella-shaped papery combs hanging horizontally in protected spaces; attics, eaves	Large paper nest shaped like inverted pear; usually hangs from branches or eaves

(Portions from the publication: *Honey Bee or Yellowjacket Wasp?* found on the website: [www.beelab.umn.edu](http://www.beelab.umn.edu); August 21, 2012.)