

## Is it a Yellowjacket or Honey Bee?

Almost everyone calls yellowjackets “bees”. This is unfortunate because it maligns one of our most important and beneficial insects – the honey bee. Usually the context of the statement is something negative, as in “I’ve just been stung by a *blankety, blank* bee!” Most of the time stings are the result of an encounter with a *yellowjacket wasp*, not a honey bee. Below is some information about telling the difference and why it might be important.

Honey bees are tan or brownish yellow in color and clothed in a dense coat of hairs. Yellowjacket wasps are brighter in color overall being bright yellow and shiny black or all black with a white face (yes, baldfaced hornets are a type of yellowjacket). Yellowjackets are not clothed in fine hairs. For color images of yellowjackets and honey bees see [www.LivingWithBugs.com](http://www.LivingWithBugs.com).

Yellowjackets are a type of wasp. They live in colonies that are located either above- or belowground. Yellowjacket wasps are always either predators that require live prey or scavengers that utilize carrion. Both predator and scavenger yellowjackets use plant sap and fruit juices as well. Honey bees, on the other hand, collect plant pollen, which makes them important as pollinators, and plant nectar, which plants use to encourage bee visitation and increase pollination. Because honey bees are plant-oriented they are almost never as aggressive and dangerous as predator/scavenger yellowjackets.

Another important distinction between yellowjackets and honey bees is the seasonality of their nests. Because honey bee colonies last more than one year (some last several years) you can encounter mature honey bee nests at any time. Yellowjacket nests, with few exceptions, start new each spring, grow throughout the summer and die in the fall or winter. For this reason dangerous yellowjacket nests are usually only encountered in late summer and early fall when these nests are at maximum size.

Both insects sting and both inject venom through the stinger. Yellowjackets have a smooth, barbless stinger that is withdrawn after the venom is delivered leaving no stinger behind. Individual yellowjackets can therefore sting multiple times. Honey bees have a *barbed stinger*, like a fish hook, that remains embedded in the wound. The anchored bee stinger pulls out some of the insect's internal organs including the poison glands. Thus honey bees die after delivering a sting. It

is important that you carefully remove the honey bee stinger and associated poison gland to stop delivery of venom. Carefully scrape away the stinger with the edge of a card or finger nail, don't squeeze it.

Yellowjackets are generally more dangerous than honey bees because of their tendency to swarm in defense of their nest. Any disturbance of the nest, whether accidental or not, often provokes this swarming behavior. Even the rumble of a nearby lawnmower can cause the defensive behavior and result in someone getting attacked. Honey bee hives, which are constructed aboveground, often hidden in the branches of a tree, almost never display this level of aggression and don't swarm in defense of the colony. If honey bees were as aggressive as yellowjackets beekeeping would be a much more hazardous profession!

One exception to the rule that yellowjackets are aggressive and dangerous while honey bees are not is a type of honey bee called the Africanized bee. In brief, a number of years ago a type of honey bee was accidentally introduced into South America that was extremely aggressive compared to our more native honey bee, called the European honey bee. The aggressive honey bee is an excellent colonizer and often displaces the more docile European honey bee where they occur together. So far the aggressive bee only occurs from the southwestern US south into Central and South America (in this hemisphere). If you are in areas where the Africanized bee occurs you should exercise special caution around these nests.

While it is sometimes necessary to destroy a yellowjacket nest, especially in late summer, it is never a good idea, or necessary, to destroy a honey bee hive. If relocation of a bee hive is needed contact a local beekeeper to remove it. See [www.LivingWithBugs.com](http://www.LivingWithBugs.com) for articles about yellowjacket biology, how to destroy dangerous nests, and using yellowjacket decoys to keep them away from your picnic. Since honey bees are important pollinators of many agricultural crops as well as our fruit gardens their hives should be left alone.