



Yellowjackets in Virginia

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Introduction

Yellowjackets are social wasps in the genera *Vespula* and *Dolichovespula*. Sometimes called “meat bees,” yellowjackets prey on many insects and arthropods and will also scavenge meat from human food, dead animals, or garbage (Fig. 1). They feed these protein foods to their developing larvae. Adult yellowjackets feed on liquids produced by their larvae and, later in the year, on nectar, ripe fruits, and other sugar sources (Fig. 2). Yellowjackets can be nuisance pests in late summer when foraging for foods consumed by people, but they also kill numerous plant-feeding insects while collecting food for their developing brood. Adult yellowjackets may pollinate the flowers they visit for nectar.



Figure 1. Yellowjackets foraging on a piece of meat (Whitney Cranshaw, Colorado State University, Bugwood.org).

Description

Yellowjackets are known for their black and yellow or orangish markings in bold patterns (Figs. 1 & 2). One exception is the [baldfaced aerial yellowjacket](http://Bugwood.org) (formerly known as the baldfaced hornet, *Dolichovespula maculata*), which is largely black with ivory markings (Fig. 3).

Depending on the species, yellowjackets typically measure 13-25.4 mm (0.5 to 1”) long. They have a defined waist and fold their wings lengthwise when

resting (Figs. 2 & 3). The wings may be dark or clear.



Figure 2. Yellowjackets foraging on overripe fruit (Ansel Ommen, Bugwood.org).

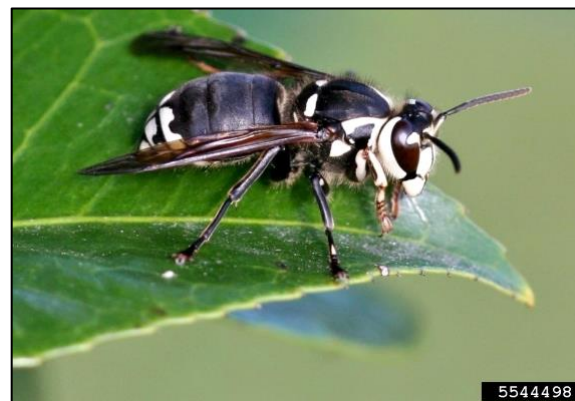


Figure 3. Baldfaced aerial yellowjacket (Johnny N. Dell, Bugwood.org).

Each female yellowjacket can give multiple painful stings. Yellowjackets release an alarm pheromone when attacking, exciting other nestmates to attack intruders as a group. People sensitive to insect venom may need medical assistance after being repeatedly attacked by yellowjackets.

Yellowjacket Nests

Yellowjackets in the genus *Vespula* nest in the ground (Figs. 4 & 5), in hollow trees, and in wall voids of buildings. *Vespula* nests often have more than one entrance hole. Aerial yellowjackets in the

genus *Dolichovespula* make nests above ground, typically on tree branches (Fig. 6), in shrubs, and under the eaves of buildings. Sometimes they will build nests in protected areas such as hollow tree trunks or attic spaces. Both *Vespula* and *Dolichovespula* yellowjackets make paper nests from chewed wood or plant fibers (Figs. 5 & 6).



Figure 4. Ground nesting yellowjackets. Stephan Sprinz, CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0>), via Wikimedia Commons



Figure 5. Exposed paper nest of ground nesting yellowjackets (Alex1011, CC BY-SA 3.0 <<https://creativecommons.org/licenses/by-sa/3.0>>, via Wikimedia Commons).

Life Cycle

In Virginia, yellowjacket wasps can be nuisance pests in recreational areas from late summer until early autumn when yellowjacket colonies are at their largest size. The numerous foraging workers may become serious nuisance pests as they search for food. They often pester people eating outdoors and scavenge food from trash bins and dumpsters.



Figure 6. Baldfaced aerial yellowjacket nest (Sturgis McKeever, Georgia Southern University, Bugwood.org).

Usually, yellowjacket nests will begin to fail in the fall as the developing brood mature and leave for mating flights, and the remaining workers die off with cold weather. Abandoned nests are not reused the following year. Fertilized females who leave the nest for mating flights do not return to the original nest. They survive the winter in protected places such as rotting wood, in vacant rodent holes in the ground, under leaf litter, and in wall voids, attics, and similar places where the temperatures remain above freezing. Each single queen starts a new nest in a new location each spring.

Rarely in Virginia, nests built in attic spaces or in temperature-controlled sites may persist over the winter with the current queen and her workers surviving and continuing from one year to the next, especially if the winter is mild. The non-native German yellowjacket (*Vespula germanica*) is one species that may occasionally reuse its nest. Perennial yellowjacket nests are more common in the Deep South than in Virginia.

Control of Outdoor Nests

Management of yellowjackets foraging in recreational areas is recommended to reduce the possibility of stings. Locate nests during the day when workers are flying in and out on a regular basis. Return late at night, after the workers have returned to the nest, and treat the nest with wasp and hornet spray or an insecticidal dust labeled for outdoor wasps.

Use a wasp and hornet spray to soak aerial nests thoroughly from a safe distance. Do not stand where the insecticide can fall on you. Nests located below

ground can be treated with a spray insecticide first, followed by an insecticidal dust application to kill any remaining workers. Do not try to bury underground nests. Do not apply gasoline, diesel, bleach, or other harmful chemicals to the nest. Do not try to smoke or burn the yellowjackets out.

If it is difficult to angle an insecticidal spray into the entrance of ground nests or nests built in a protected outdoor location, consider placing an insecticidal dust at the nest entrance so the workers will contact it as they fly in and out of the nest. The dust will be carried into the nest by returning workers to kill the yellowjackets deep in the nest. Watch the entrance of aerial or ground nests for flying workers the next day. If the nest appears to still be active, treat the nest again at night. You may need to treat the nest several times if the nest is particularly large.

Insecticide control of individual nests within an immediate area may not eliminate every yellowjacket worker because yellowjackets can fly a mile (1.6 km) from their colony in search of food. In addition to chemical treatment of the nests, rigorous sanitation and physical exclusion of foraging workers from attractive food sources can help manage yellowjackets in a given area. Start in early summer and carry throughout mid-autumn to reduce the buildup of foraging yellowjackets within an area. Keep the lids closed on outdoor trash containers whenever possible. Outdoor trash containers without lids should be emptied regularly, even as often as every few hours, when large numbers of yellowjackets are seen. Use an aerosol insecticide to kill yellowjackets present around trash cans before emptying them to protect yourself from being stung.

Yellowjacket traps will catch some foraging workers, but will not completely eliminate them. See recommendations for baited yellowjacket traps in the current [Home Grounds and Animals Pest Management Guide](#). Removing food sources and preventing workers from reaching food sources are more effective than widespread spraying of infested areas, as new foraging workers will arrive from unsprayed areas. Electrocuting devices employing UV light (i.e., bug zappers) have no value in reducing the number of yellowjacket foragers.

Control of Nests in Houses

Do not plug the entrances of yellowjacket nests found in the walls of houses and other buildings. The workers may chew a new entrance through the

walls to escape into the living area of the home or the interior of the building. Nests in wall voids may be located some distance from the entrance holes and can be difficult to target with insecticides. Follow the label recommendations for all materials used against yellowjackets and do not use a material labeled for outdoor use inside the home.

Dealing with yellowjackets nesting in the voids of interior walls in houses may justify the cost of a licensed pest control operator. Professional pest control operators have specialized equipment and materials for managing indoor yellowjacket nests.

Nests in wall voids, attic spaces, and other indoor areas should be removed promptly after the yellowjackets are dead whenever possible. Yellowjacket nests may attract other insects or mice that feed on the dead adults and the brood left in the nest. Nest removal may depend on where the nest is located, how large the nest is, how much damage there may be, and the cost of the repair. If the nest cannot be removed, treating the nest with an insecticide labeled for indoor use and with long residual activity may help control these secondary insect pests.

Seal any cracks, holes, and crevices in walls or foundations to prevent fertilized queens from entering these areas to start their nests. Windows and doors should have tight-fitting screens and functional door sweeps. Keeping the house in good repair will also limit other insect pests from entering the home.

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