

European Hornet

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The European hornet (*Vespa crabro*) was introduced to North America in the 1840s. Since arriving, this insect has spread throughout the eastern United States. European hornets can cause painful stings and damage ornamental plants by feeding on fruit or chewing on branches to obtain nesting material.

Description and Life Cycle

The adult European hornet is relatively large at 1-1½” (2.5-3.8 cm) compared to most wasps. Brown and yellow markings distinguish this species (Figure 1) from bald-faced hornets, which are black with white markings, and yellowjackets, which are black and yellow. The European hornet forms small colonies in human-made structures and trees with open cavities. Nests are typically constructed higher than six feet above the ground. Queens emerge in early spring to find a new nesting site. A second generation will emerge from late summer through early autumn. Second generation queens that emerge will overwinter in tree cavities and protected structures. European hornet nests are brownish-tan, as opposed to the grayish-white coloring of bald-faced hornet nests. European hornets are uniquely attracted to lights and active during daytime and night.

Damage

Lilacs are the most commonly damaged plants by European hornets; however, other species may be attacked. Plant damage results when worker hornets chew off bark to mix with saliva and use in nest-building (Figure 2). Extensive chewing can cut off the flow of water and nutrients and lead to branch dieback. In autumn, European hornets may consume fruits such as apples for their high sugar content (Figure 3).

Figure 1: Brown and yellow markings distinguish the European hornet from other wasps

Photo credit: Jon Yuschock, Bugwood.org

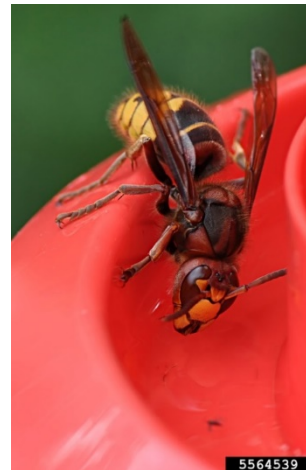


Figure 2: European hornet damaging tree by chewing bark for nest materials



Figure 3: European hornets consuming an apple



European hornets can harm humans and pets with painful stings. When one hornet stings, it releases an alarm pheromone which alerts additional hornets to continue attacking. Unlike honey bees that can only sting once, hornets can sting multiple times.

Management

Any management of the European hornet needs to be conducted with extreme caution to avoid being stung. If the nest is in a location where humans or pets will not encounter the hornets and plants are not damaged, avoid the nest and allow them to die naturally during winter. Direct exposure to light can irritate European hornets so do not shine a flashlight directly into a nest. Also, do not attempt to plug a nest because this species can chew their way through construction materials. Please contact your Bartlett Arborist Representative to learn more about management strategies and removal of European hornets.



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