



Stinging Insects: Ground Nesting Yellow Jackets



Adult yellow jacket, James Castner
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Common name: Ground nesting yellow jackets; also see aerial nesting yellow jackets

Scientific name:

- Eastern yellow jacket (ground-nesting yellow jacket): *Vespula maculifrons*
- German yellow jacket: *Vespula germanica*

Also known as: sandhills hornet, ground bees

Size: 1/2 to 5/8 inches long

Commonly confused with: honey bees, hornets

Distinguishing marks:

- stout, mostly hairless body
- black with bright yellow markings on sides of head, thorax, abdomen and legs
- fly with legs close to body

Distribution: throughout North America

Habitat: Meadows and edges of forested land; The eastern yellow jacket builds nests underground or at ground level in fallen logs or tree stumps. The German yellow jacket often nests in the walls of houses and other buildings.

Life cycle: All yellow jackets are social insects with annual nests. In spring, a solitary queen emerges from hibernation. She builds a small nest using chewed wood pulp and raises the first generation of workers on her own. After they emerge, these workers collect food while the queen restricts herself to laying eggs. The larvae are fed pre-chewed insects caught by adults, while the adults feed on nectar and fruit pulp. The nest grows quickly and may contain several hundred to a few thousand workers by the end of the summer. As fall approaches, colonies produce males and new queens, which leave the nest to mate. After mating, the new queens burrow into the ground where they spend the winter. The workers, males, and the old queen perish in the fall. Nest sites are not reused.

Damage: The yellow jacket can cause structural damage if a nest is built in wall or attic. Yellow jackets become very numerous towards the end of summer, and may be persistent, unwelcome guests at picnics, where they scavenge for food.

Benefits: They are predatory and eat many harmful insects.



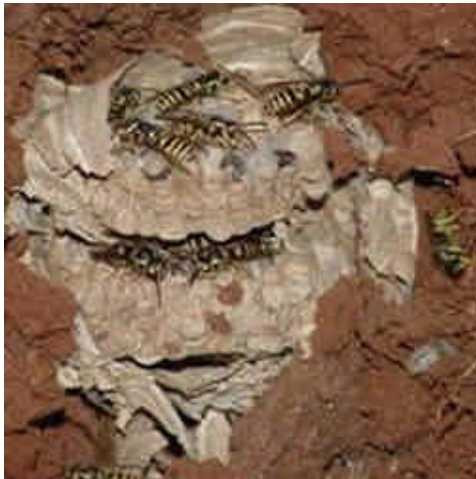
Adult yellow jacket, Jim Kalisch, Dept of Entomology,
University of Nebraska-Lincoln



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Management: First, decide if the nest actually poses a risk. If it is out of the way, it may be prudent to wait and let the nest die naturally in the fall. If removal is necessary, apply an approved insecticide directly into the nest opening. Use an approved "Wasp and Hornet" spray that propels a stream of insecticide 15-25 feet. Treatment is most effective in the evening when the majority of the insects are in the nest. Be sure to dress appropriately. Wear eye protection, a long-sleeved shirt, trousers and boots, and secure your sleeves and pant legs. Establish an unobstructed escape route and be ready to move quickly away if any of the bees fly towards you. If you require illumination, use a flashlight covered with red cellophane for light - wasps cannot see red. You may need to repeat the treatment two or three times on consecutive evenings. As there is some risk of being stung, you may wish to seek professional help. After a nest has been removed, be sure to fill any openings to prevent future entry.

If yellow jackets are present, avoid using perfume or cologne, and do not wear bright colors, as they are attracted to anything that looks or smells like a flower. At picnics, keep all food and drink covered, except when actually serving or eating. Be careful when drinking from a can or bottle, as you may swallow a yellow jacket and receive a sting in the throat. Always keep trash containers covered.



Yellow jacket nest that has been dug from the ground,
Ron Patterson, <http://home1.gte.net/cpq1cvvg/index.htm>

Sting: Yellow jackets will sometimes sting without provocation; and unlike the honey bee, they can sting repeatedly. Avoid disturbing a nest, since yellow jackets are aggressive and can deliver a painful sting. Check your lawn and shrubs for nests before mowing or pruning. If you are stung, cooling the area with ice may be soothing.

Remember! Insect stings can elicit a life-threatening, allergic reaction in some individuals. Check with your physician to determine what symptoms require a visit to the emergency room. Never attempt any control measure if you have a known allergy to insect stings.

Further sources: Akre, R.D., A. Greene, J.F. MacDonald, P.J. Landolt, and H.G. Davis. 1980. *Yellow jackets of America North of Mexico*. U.S. Department of Agriculture, Agriculture Handbook No. 552, 102 pp.

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