



Stinging Insects: Paper Wasps



Adult paper wasp, Whitney Cranshaw, Colorado State University, www.insectimages.org

Common name: Paper wasps

Scientific name: *Polistes dominulus*, *Polistes fuscatus*

Also known as: umbrella wasp

Size: 1/2 to 1 inch long

Commonly confused with: hornets, honey bees

Distinguishing marks:

- body reddish brown to black with yellowish rings around abdomen
- constructs paper-like nest of upside-down brood cells (compartments for young), supported by a single stalk, which resembles an upside down umbrella
- each nest consists of a single tier of cells that is not enclosed by a paper cover
- wasps appear “alert” to activity near their nest
- long slender legs hang down in flight

Distribution: throughout North America

Habitat: meadows or fields, prefer to nest under an overhang, such as the eave of a roof

Life cycle: Paper wasps are social insects with annual nests. A solitary queen emerges from hibernation in the early spring and builds a small nest using chewed wood pulp. She 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 caterpillars caught by adults, while the adults feed on nectar. Nests are typically small, usually a few dozen workers, but may contain as many as 100 workers. 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. All workers, the males, and the old queen perish around November. The same nest is not used again.

Damage: These wasps are aggressive and will defend their nest if provoked. They deliver a painful sting. Their nests do not cause structural damage to buildings.

Benefits: These insects are voracious predators of several residential and agricultural pests. They are especially valuable near vegetable gardens, where they provide natural and free control of herbivorous caterpillars.

Management: If the wasps are present in an area where they will not bother people, it is best to leave them. They will be gone after the first frost; and, in the meantime, they will reduce the populations of local pest species. They do not present a danger unless the nest is disturbed, and they will not return to the same nesting site the following year.

If control is necessary, use an approved "Wasp & 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 on the nest. Be sure to dress appropriately. Wear eye protection, a long-sleeved shirt, long pants and boots, and secure your sleeves and pant legs. Establish an unobstructed escape route and be ready to move quickly away from the area in case any of the insects fly towards you. Stand a safe distance from the nest and slowly approach while spraying with a sweeping motion (follow specific directions of the insecticide). If you require illumination, use a flashlight covered with red cellophane for a light - wasps cannot see red. You may need to repeat the treatment on two or three consecutive evenings. You may want to call in a professional, as there is a risk of being stung.



Paper wasp nest Whitney Cranshaw, Colorado State University, www.insectimages.org



Beginning of paper wasp nest, covered cell in center is a developing wasp that will emerge as adult, Whitney Cranshaw, Colorado State Univ, www.insectimages.org

Sting: If a paper wasp approaches you, slowly raise your hands to your face and walk away. Remain calm! Avoid swatting at the wasp or running, as quick movements may elicit an attack. If possible, avoid the use of scented perfumes and soaps, and wear gray, white or tan to reduce the chances of a wasp approaching you. Unlike the honey bee, paper wasps have a smooth stinger and can sting more than once. 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: Turillazzi, S. and M.J. West-Eberhard. 2002. *Natural History and Evolution of Paper Wasps*. Oxford University Press, Oxford, U.K., 416 pages.

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