Paper Wasp

Polistes spp.

Paper wasps are 3/4 to 1 inch long, slender, narrow-waisted wasps with smoky black wings that are folded lengthwise when at rest. Body coloration varies with species: *Polistes exclamans* is brown with yellow markings on the head, thorax and bands on the abdomen; *Polistes carolina is* overall reddish-brown.

Paper Wasps are often mistaken for a close relative, the Yellowjacket Wasp. The Paper Wasp abdomen is spindle-shaped and tapers at both ends; the Yellowjacket abdomen is broad at both ends. Paper Wasps are slender in appearance and are approximately 8.6 cm long; yellowjackets are robust and are about 1.3 cm in length. Paper Wasps has distinctly long legs; the Yellowjacket as relatively shorter legs.

Fertilized Paper Wasp queens overwinter in protected habitats such as cracks and crevices in structures or under tree bark. In the spring they select a nesting site and begin to build a nest.

Paper wasps are semi-social insects and colonies contain three castes: workers, queens and males. Generations overlap in such a way that offspring assist their parents in contributing to colony labor.

Nests are built from wood fiber collected from posts and occasionally from live plant stems, causing some plant damage. This fiber is chewed, mixed with salivary secretions of the female, and formed into a single paper-like comb of hexagonal cells. Nests are oriented downward and are suspended by a single filament.

The nest is open-faced, single-layered, and shaped like an inverted umbrella. These nests are constructed above ground and can be found hanging from eaves, branches of trees and shrubs, flowering plants, garage ceilings, fences, attics of homes, and other protected areas.

The nest is started by a mated female queen who builds a small number of cells and into which she deposits an egg. The eggs will hatch after about two weeks and the emerging larvae will continue to develop and grow within the cell.

The queen will forage for food outside the nest and bring back the food to the growing larvae until such time as pupation occurs.

All initial emerging adults will be female workers with undeveloped reproductive organs. These new female workers will then assume the responsibility of the feeding of all other larvae and further construction of the nest, while the queen will then devote all her time to egg-laying. Fed insects (caterpillars, etc.) and nectar by the queen, these larvae transform into adults in about two months from the time of egg laying.

Eggs are laid singly in cells and hatch into legless grub-like larvae that develop through several stages (instars) before pupating. Cells remain open until developing larvae pupate. The pupal period is about two weeks.

A mature Paper Wasp nest may have 20 to 30 adults, and mature nests contain up to 200 cells. The duration of a colony can be for approximately six to seven months and is primarily dependent upon the reproductive capacity of the queen.

In late summer, queens stop laying eggs and the colony soon begins to decline. In the fall, mated female offspring of the queen seek overwintering sites. The remainder of the colony does not survive the winter.

Paper wasps prey on insects such as caterpillars, flies and beetle larvae which they feed to their own larvae. They actively forage during the day and all colony members rest on the nest at night.

Because wasps feed on insects, including caterpillar pests, they are considered to be beneficial insects by many gardeners.

There are many causes for wasp stings,, but it all comes down to disturbing them or their nests. They are defending themselves from a perceived attack, whether it was intended or not.

When people see a wasp, they should avoid swinging at it because the action is likely to provoke an attack. People can lessen their attractiveness to wasps by foregoing hair spray, perfume, or after shave and by not wearing bright-colored clothing, especially bright yellow, light blue, red, and orange. Instead, wear white or light tan.

Wasps attack when the nest is disturbed and each wasp can sting repeatedly. Stings typically cause localized pain and swelling, but in sensitive individuals or when many stings occur whole body effects can occur including allergic reactions that may result in death. Males are incapable of stinging because the stinger on the females is a modified egg-laying structure and it is not present in males.

Conventional remedies for wasp stings include Benadryl or other antihistamines to reduce swelling and pain. This is especially useful for an allergic or toxic reaction.

If none are available and if the sting is not deep, a simple remedy is to mix equal parts baking soda and vinegar into a paste and coat onto the sting. This will help break down the components of the sting fluid. An application of meat tenderizer will do the same.