

Bees & Wasps: Don't Let Them Put the Sting on You!

By Douglas Stern, Managing Partner of Stern Environmental Group and expert on bee control.

The soft drone of bees drifting lazily from flower to flower seems an innocuous part of the summer landscape. But when surprised or provoked, these usually beneficial insects can attack and turn deadly.

The experiences of a Miami Beach apartment owner provide a cautionary tale for business and property owners. A swarm of bees attacked the property manager while she was checking vacant apartments, sending her to the emergency room with multiple stings. Maintenance workers located a massive beehive in the wall of an empty apartment. Honey had permeated the wallboard and dripped through the ceiling onto a staircase. Before cleanup procedures could be started, a tenant slipped on the honey and fell down the stairs, seriously injuring himself and requiring extensive surgery. By the time all the lawsuits and medical bills were settled, bees wound up costing the property owner \$1.4 million.

Bees and wasps are beneficial insects. They pollinate flowers and farm crops and prey on harmful insects. Only a few of the 35,000 species of bees and wasps present a problem to humans. Most bees and wasps live a solitary lifestyle, but many stinging species, including honeybees, bumblebees, paper wasps, yellowjackets and hornets live together in large colonies. Their painful sting is used to paralyze insect prey and protect the hive from attack. Generally, bees and wasps don't bother humans unless provoked. In fact, according to a risk analysis by the Harvard School of Public Health, your chance of being stung by a bee is about 6 million to one. You're twice as likely to be struck by lightning. Despite the low risk, stinging insects send 500,000 people to U.S. hospitals every year.

As summer wanes and colonies forage for food to sustain their queens over the winter, bees and wasps become increasingly aggressive. Wasps, which include paper wasps, hornets and yellowjackets, are more aggressive than bees and, unlike honeybees, can sting multiple times. When provoked, bees and wasps swarm and attack. As the stinger penetrates the victim, toxin is injected accompanied by the release of alarm pheromones that attract hive mates to the attack. The attack will not end until the victim flees to an impenetrable shelter or is killed.

Bee and wasp stings are generally classed as a nuisance, though they can be quite painful, causing swelling and itching. However, to those who are allergic, a single sting can be fatal. Allergic reactions to bee stings include hives, nausea, vomiting, dizziness, slurred speech, drop in blood pressure, irregular heartbeat, swelling in the throat that interferes with breathing, and unconsciousness. "Usually the throat closes up and blood vessels dilate so much that you go into shock," explained Ohio allergist Dr. Garry Rupp. Antitoxin must be delivered within 15 minutes or death can occur. An estimated 2.5 million Americans are allergic to bee stings which cause between 50 and 100 deaths each year.

Bees, wasps and ants are closely related, being of the biological order Hymenoptera which means "membrane wing." All have chewing mouthparts, six legs and four transparent or translucent wings. Depending on species, they range in size from approximately 1/2 to one inch

and go through a complete metamorphosis with egg, larva, pupa and adult stages. Predominately female, only a few males are produced each year to fertilize the queens.

Colonies, which can number in the hundreds, live in complex hive structures. Bees use wax to build hives while wasps produce a paper-like substance from partially chewed wood. Hives may be built on tree limbs, under the eaves of homes, under siding, inside garages and storage sheds, in attics or in enclosed spaces such as underground burrows, hollow trees and logs, wall voids, empty boxes, even old tires. Except for the queens who hide deep in the hive, the entire colony dies during the winter. The exception is honeybees who survive the winter by eating stored honey.

The sting from bees and wasps can be financial as well as physical. These stinging pests present a serious problem for business and property owners, endangering and driving away customers and tenants. Bees and wasps are attracted by perfume, bright colors, sweets and proteins. Highly aggressive yellowjackets which feed on sweets and proteins can be especially dangerous to patrons of outdoor picnics, patio restaurants, swimming pools, amusement parks and other popular summer events. You'll find these menacing pests buzzing around food and drink tables, crawling into soda cans, frightening children holding ice cream cones, and hovering around garbage cans and recycling bins. Their presence can send customers fleeing and spoil even the best-planned event.

Don't get "stung" this summer. If you are experiencing a problem with bees or wasps, consult a pest control expert before anyone gets hurt. Due to the aggressive and potentially dangerous nature of these pests, removal should be handled by a pest control expert.