

**Notes from a Rogue entomologist**

# Ants in the house and the curious case of the velvety tree ant

BY RICHARD J. HILTON

"What should I do if I have ants in the house?" This is a question that every entomologist has probably heard more than once. E.O. Wilson, our most famous living entomologist and a specialist on ants, provides this answer: "Be sure you have some time available, get a magnifying glass and prepare to study an alien society." While this is not the answer most people are looking for, it is very typical of E.O. Wilson, who is an authority on biodiversity and actively involved in preserving it.

When I read Wilson's autobiography, *The Naturalist*, I discovered that he had spent some of his youth in Washington, DC, and he would often visit Rock Creek Park where he surveyed and cataloged species of ants there. I grew up in DC and also spent considerable time in the park, but I was more likely to step on an ant than study it. I remember one occasion when, along with a couple of friends (I am not taking sole responsibility for this), I put a red ant and a black ant together in a jar to see them duke it out. Having rather short attention spans, when nothing happened after five minutes or so we released the ants and moved on to other entertainment. In looking back on my youth, I do think it is fortunate that video games were not available and that we had only three TV channels. But let's move on before I start sounding like Clint Eastwood in the movie *Gran Torino*.

It is very likely that those black and red ants that we captured were carpenter ants. The largest ants that we encounter locally are carpenter ants ranging from one-quarter to one-half inch in size and, as their name implies, they will, on occasion, enter houses and excavate wood, particularly if the wood has been softened by moisture. Carpenter ants do not feed on wood as do termites; they are only removing the wood to create a nesting space.

Then there are those small ants that are often seen invading the kitchen

looking for food or possibly water. These smaller ants can be a number of different species and they are referred to by various names, such as sugar ants and piss ants. I

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was curious about the origin of the term "piss ant"; apparently, it is derived from "pismire," the Middle English word for ant, which referred to the pungent smell of ant nests in the woods. The smell is the result of formic acid (in Latin, *formica*), which was first isolated from ants. Our most common sugar or piss ant is the aptly named odorous house ant. These small black ants are frequent home invaders and give off an odor when crushed. The odor has been described as the smell of a coconut, which I do not get at all, but my sense of smell is not the best. However, if you happen to crush a velvety tree ant, I guarantee that you will get to experience the pungent, acrid smell of formic acid. Velvety tree ants are variable in size but may grow to a quarter inch—larger than most of the pest ants in your house, but still smaller than a carpenter ant. The color of the velvety tree ant varies from a dark brown head and abdomen to a red or even yellow thorax, and "velvety" refers to a layer of fine hairs on their body.

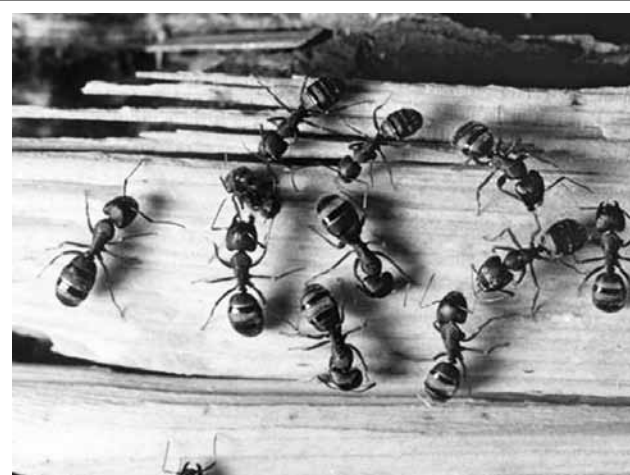
Velvety tree ants are not to be confused with the velvet ant (this is the problem with common names). The velvet ant is actually a type of solitary wasp; the females are wingless so they resemble ants. They are large, very hairy, and have patches of bright red. When an insect is brightly colored like that it usually means that they taste bad

(possibly poisonous) or they can deliver a painful sting. In the case of the velvet ant, it is most definitely the latter, and folks who have made the mistake of picking one up or accidentally stepping on one while barefoot can attest to the wasp's "cow killer" nickname, as the sting is reported to be quite memorable. Velvet ants do not live in colonies and are usually found crawling on the ground in open areas.

When I first arrived in southern Oregon a little over 25 years ago, the velvety tree ant was not considered to be a pest. Now it has become a common ant pest found in the home, particularly if you live in a wooded area. I looked at some references from the 1990s on ant pests, and the velvety tree ant does not usually warrant even a mention. I also checked the *Pacific Northwest Insect Management Handbook*, which is updated annually. In 2007 the velvety tree ant is mentioned as a structural pest; prior to that the only ants discussed were carpenter ants. A list of nuisance ants found in the home does not include the velvety tree ant until 2009. So what happened between 25 years ago and now to elevate the velvety tree ant to common-pest status? Perhaps it increased its range, but I have not found much evidence of that. In fact, when I looked into Louis Gentner's old insect collection here at the research center, I found half a dozen specimens of *Liometopum occidentale*, or velvety tree ant, collected here locally dating back to the 1930s.

Could something have changed in the home environment to favor the velvety tree ant? Well, it just happens that the velvety tree ant has a distinct proclivity for nesting in Styrofoam insulation. They seem to love the stuff. I guess it makes sense—why mess around with damp wood when it is so easy to chew a nice cavity into Styrofoam? Carpenter ants will occasionally nest in attic insulation, but they do not seem to prefer it the way the velvety tree ants do. I have seen velvety tree ant nests in walls, ceilings, even doors and windowsills that contained foam insulation. My hypothesis is that the proliferation of foam insulation over the last 25 years in our homes has provided a new and most favorable habitat for velvety tree ants to exploit.

But remember, both velvety tree ants and carpenter ants are using the structure only as a nesting spot. Although they may feed on foodstuffs from indoors, their food is primarily obtained outdoors; they eat mainly live and dead insects along with honeydew (i.e., sugary excretions) produced by other insects such as aphids. If ants are taking up residence in your home, finding and eliminating the original nest will usually provide excellent control. Carpenter ants found in the home are often coming from a nearby tree stump, one of



**Top photo:** Carpenter ants are the largest ants found locally. Photo: pestid.msu.edu. **Bottom photo:** Odorous house ants often invade kitchens. Photo: nathistoc.bio.uci.edu.

their favored nesting sites. Velvety tree ants, as the name suggests, are most often nesting in a tree hole. While you might think it would be simple to track the ants back to their nest, I have rarely found it to be easy.

Carpenter ants were invading our house a while ago and I tried using a stethoscope for locating their nest in the wall; this is actually a recommended technique, but it did not work for me. On another occasion, we had some odorous house ants that were getting into the kitchen and I happened to be digging around the foundation for another reason when I unearthed their nest. I did feel a slight pang as I saw the worker ants scurrying for shelter, most of them carrying a small white larva in their mandibles. But, with the nest demolished, the ants were no longer a problem in the house.

If you have ant problems, it is recommended to block points of entry. Remove plants right around the foundation, especially tree limbs that are touching the roof since ants will often climb on vegetation to access your house. Baiting can be an efficient way to eliminate ants in the house. The ants will take the poison bait back to the nest and feed it to the developing larvae, thereby eliminating the nest. When using ant bait, try to check and see that the ants are taking the bait. Ants will often be looking for either sugar or protein and, if the bait is not what they are looking for, they may pass it up. While ants are a wonderful object of study, I realize that most people do not want to share their living space with an alien society.

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The velvety tree ant has become a common house pest, particularly in wooded areas. Photo: bugguide.net.



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