CRAZY ANTS

As it turns out, ants marching two-by-two was really low-balling it.

BY FRANK MAUCK

Kim Bockover, Property Manager for the Barrington Group in Southwestern Florida, first noticed them in the rear of the property. Farthest from the entrance of the horseshoe-shaped community of 14 buildings, the tiny pests had made their first incursion across enemy lines.

The crazy ant siege had begun.

Twelve months later, the ants had inundated nearly all of the 12-acre property, a mixture of owner-occupied condominiums and rental apartments abutting a nature preserve.

"When I first saw them, I thought they were just ants," says Bockover, who, prior to her career in property management, was an U.S. Army environmental health technician (read: Military pest control), a health inspector for Maryland and worked for the National Restaurant Association's Public Health Division writing manuals for conducting restaurant inspections. Needless to say, she is not what one would call a "layperson."

She began a traditional treatment regimen for the invaders, but they were back in full force just three days later.

"They would keep coming in droves, like an army invasion during World War II," says Bockover. "It seemed like the ants were playing a strategic game and I was not only losing, I was at my wit's end."

Know Thy Enemy

Tawny crazy ants, also known as Raspberry crazy ants (not for their color, but for Houston-based exterminator Tom Raspberry, who first drew attention to the problem in Texas in 2002), is an invasive species whose workers display quick, erratic behavior when searching for food, meriting the sobriquet "crazy."

An eighth of an inch long and covered with brown hairs, as individuals they could hardly be considered scary. But like many of their kin in the insect world, they don't fly (or crawl) solo. Their colonies are polygynous, meaning they have multiple queens (as many as 40 per colony in the case of this species). It makes treating infestations orders of magnitude more complicated, in what is already a challenging species to address.

"We haven't figured out the best attractive bait they like," says Ron Harrison, Technical Director for Orkin in Atlanta, who has been involved with pest control for 30 years. "There are 25 to 30 species of pest ants in the United States; we've figured out bait for most of them. We just don't have one yet for crazy ants because they feed on different things different times of the year."

The sheer numbers of ants also complicate matters. "It's like a war with crazy ants," says Harrison. "If you send enough soldiers into battle, the numbers become so overwhelming it's difficult to fight back."

There is no hyperbole in Harrison's statement. "They swarmed into all crevices," Bockover says. "Second-floor lanais, fascia, even vacant apartments that had no food. If you lifted up the St. Augustine grass or the mulch, you'd see millions."

Despite not presenting a physical danger to humans (they have no stingers; they can bite but it's not terribly painful, especially considering the other ant species common to the southern states like fire ants), untreated crazy-ant populations can wreak havoc on residential spaces. In their search for sustenance, crazy

ants can quickly cause serious damage to residences and residents' belongings.

"They're not only a nuisance but a threat to property, causing thousands of dollars in damage," Bockover says. "Damage from these tiny invaders includes structural, electrical and loss of customers."

The economic impacts of invasive species like crazy ants are staggering. Cornell University ecologist David Pimental estimates that they collectively cost the country upward of $120 billion annually, with $2.2 billion spent by the federal government in 2012 alone on control and protection of the ecosystems they threaten.

Kim Bockover in her office.

As omnivores, crazy ants' calorie sources range from honeydew (made by aphids) to plants to other insects and small animals. Rumors swirl concerning crazy ants' attraction to electricity, as they've quickly developed a reputation for short-circuiting electronics, from cars to televisions to entire fuse boxes.

"I looked closely at [that theory], but it doesn't make biological sense to me," Harrison says. "I'm not convinced."

Many in the entomology community share Harrison's opinion. It probably isn't the electricity they're drawn to; they're more likely seeking a suitable place to nest—someplace warm and dry. What's likely occurring is the first of the ants to reach a live wire is electrocuted. It emits an alarm or fear pheromone that brings the other workers running. They continue to amass until they complete a circuit and ruin the device.

Crazy ants have now been reported in Texas, Florida, Mississippi, Louisiana and Georgia. "They spread through commerce," Harrison says. They are transported to new environs in the same way as many other invasive species make headway in a new environment: By hitching a ride.

Oh, and those fire ants mentioned earlier. A February 2014 study from the University of Texas at Austin discovered that crazy ants are displacing fire ants via a compound that neutralizes fire ant venom. It's the first such example ever discovered of an insect with the ability to detoxify another insect's venom. It's literally chemical warfare at the microscopic level.

Calling For Reinforcements

"Those of us who have dealt with them first-hand understand the extreme stress this plague carries with it," Bockover says. "One at a time I had residents with hundreds of thousands of ants at their door and in their home and no amount of treatment was taking them away. I did not think they were ever going to go away."

As if encountering three-foot-high piles of dead crazy ants along the lanais wasn't bad enough, word started to spread that the community was suffering from a crazy ant infestation. "This sort of word-of-mouth was actually worse than Chinese drywall and mold all wrapped into one," Bockover says. "And while the renters could move, the homeowners weren't going anywhere. The calls from renters and homeowners alike were not going to go away. Something had to be done."

Exacerbating the problem was the fact that the community sits on conservation/wetlands, so chemical treatments would be severely restricted. Removing the ants' water source was also impossible, as the acres of Florida wetland behind the building were strictly off limits.

"The treatment of the grass, buildings and interiors was doing absolutely nothing," says Bockover. "After a year of exhaustive measures, our efforts proved an exercise in futility."

As she continued to investigate potential solutions, Bockover uncovered an article about crazy ant research happening at the University of Florida. "It was a long shot, but we had nothing to lose but residents at this point," she says. "So we emailed them about our plight and asked for their help."

Within 24 hours, the university had responded and expressed a desire to visit the community. After a three-hour drive and some investigative work, University of Florida invited the community to take part in their study, including a reduction program.

"I felt like I was 10 and given a week at Disney World," Bockover says.

The buildings along the nature preserve contain four, six or eight residences. Traps were set up here every 20 to 25 feet.

The Power of Communication

"As an apartment manager, you don't want anyone to know," says Bockover. "But it's so important to tell everyone, make sure that every renter and homeowner knew about the situation, the plan with the university."

She typed up a memo to all the residents in the community informing them of an informational meeting with the university, the lawn care provider and pest control company. "It was almost like a panel discussion," Bockover says. "They knew we were working on it and now they were involved. It calmed everyone down. There were no more irate phone calls. They were excited to be a part of it.

"By keeping everyone in the loop, showing them what we were all up against, letting the university teach them about the

One of the University of Florida-manufactured crazy ant traps. The bottle contains food, water and traces of pesticide. Holes along the bottom of the PVC offer ants access.

ants and their plan, what they intended to do, made life easier on everyone," says Bockover. "No communication only leads to misperceptions and angry residents. It was unbelievable how supportive and interested everyone was in this program."

For any onsite professional, it's equally important to maintain an open, running dialogue with their pest control provider. "Make sure to review your contract closely," Harrison says. "Sometimes specific pests can be excluded on the front end. It's like bed bugs: Who is ultimately going to bear the cost of remediation? And, again, just like bed bugs, do you have the resources in your pest control budget to address a problem should one arise?"

"We were fortunate that our contract with our pest control partner stipulated free call-backs," Bockover says. "But it got to be so bad that we were going to have to sit down and alter the contract to charge for crazy ant call backs. Luckily, the university intended to provide all the necessary baits and poisons to our pest control company for free as part of the study agreement. Without the university's involvement, I suspect we were going to have to increase our pest control budget by thousands of dollars."

Behind Enemy Lines

The university met with the community's contracted pest control and lawn care companies, an arborist and a member of the local extension office (part of an educational agricultural network). Each party had a role in the process and would have to work as a team given the complex management strategy developed for addressing this infestation. "The grass couldn't be treated without also treating the trees and bushes; the leaves of certain trees had to be treated at certain times of the year because crazy ants' diets vary by the season," Bockover says.

The university then implemented homemade baiting systems, drawing them to the community to feed on miniscule amounts of bait during a 12-week period. The idea was to feed the ants with just enough bait so as not to kill them, but to ensure they returned to the non-foraging members of the colony (like the queen) with enough to cause her permanent, irreversible harm.

"I was really concerned about having bait boxes everywhere, knowing how prospective residents perceive exterior pest solutions like rat traps," Bockover says, "but the pest control company was so wonderful. They painted the traps to match the building and hid them under mulch and within the plants so you don't even notice them."

Two years later, Bockover is proud to report that the community is 100 percent free of crazy ants. "Results came slow at first, with the university originally projecting a 30 percent to 50 percent reduction requiring continuous care to keep them at bay. The university actually trained the pest control company on how to bait and monitor and we even adjusted our budget to include long-term crazy ant control."

Also included in the budget are monies set aside for fire ant management, who have since returned following the failed crazy ant assault. And, to underscore how badly crazy ants can drive property managers cuckoo, Bockover has only one thing to say: "We love you fire ants!"

Sleeper Cells to Keep You Awake at Night

"If you had asked me 10 years ago if crazy ants would be a problem, I would have said 'No,'" says Harrison, who foresees the possibility that emerging invasive species, like the kudzu bug and stink bug, could follow similar trajectories in the future.

It's always the same story with these kinds of animals: By the time you notice the problem, it's already too late.

Frank Mauck is Manager of Communications for NAA, reachable at 703-797-0647 or frank@naahq.org.