



CASE STUDY

RODENT AWARENESS WEEK: THE TRAVELING ROOF RAT

Roof rats are a slightly smaller version of the ubiquitous and more widely dispersed Norway rat. And, unfortunately, the roof rat's geographic footprint is expanding in the western United States which is not good news for commercial property owners and managers.

Traditionally, the I-5 corridor from Seattle to San Diego was prime roof rat territory, but they have started appearing inland along the I-90 corridor in central and Eastern Washington and Idaho. Sprague Pest Solutions service centers located outside the coastal areas are seeing an increase in roof rat sightings and activity.

Ashley Roden, QA and technical manager for Sprague Pest Solutions, credits this expansion to a combination of factors.

"Roof rats will take advantage of what humans provide them," said Roden. "Like other pests they will readily hitch a ride in rail car or truck shipments in search of new sources of food and shelter."

Roden said changes in weather patterns may also contribute to the roof rat's expanding geographic footprint. Roof rats prefer warm environments and as temperatures become milder across a wider swath of the Sprague service area, it's likely they will establish stronger footholds.

CHALLENGES

Roof rats present a significant challenge to manage since they are more aerial than Norway rats in where they live and in the ways they access structures. They prefer to nest in locations off the ground and rarely dig burrows for living quarters if off-the-ground sites exist.

It's known that roof rats prefer to live in the 'shadows' in and around commercial facilities. Ceiling voids, rafters, structural beams, corners, crevices and attics inside warehouses, factories, food processing, agriculture, and other facilities is where the cautious and secretive roof rat thrives.

Roof rats have an excellent sense of balance and use their long tails to steady themselves while traveling along overhead utility lines, ledges, and beams. They are very agile climbers, which enables them to quickly escape predators but also climb down to food sources.

As a result, roof rat management programs need to be as unique as the rodent they are squaring off against. Management programs require more time and a precise, nuanced approach often 'stacking the effects' to achieve the desired result.

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QA & Technical Manager
Sprague

Sprague experienced first-hand the unique challenges that roof rats present when they were called to a food processing facility dealing with a perplexing situation. The facility had received complaints from several clients after damaged product and rodent droppings were found in the center of shrink-wrapped pallets of packaged food products that were shipped from the facility.

The facility, which had zero rodent sightings/captures on their record, was under serious pressure from customers to solve the problem. And so was Sprague.

SOLUTIONS

Sprague's technical and QA team immediately jumped into action installing snap traps and other monitoring efforts to identify where the rodent threat was coming from. When these initial efforts failed to catch the culprit and after the droppings customers sent back were examined, it was determined the threat was coming from above in the form of a roof rat.

With this information in hand, Sprague pivoted its strategy and installed cameras on top of the pallet racks to see what was going on high above the warehouse floor. On the first night the cameras were recording they captured visual evidence of a roof rat.

The rat had been accessing the plant through an opening – less than an inch wide – around a support post near a storm drain on the roof. Once inside the building the rat entered the top of the unwrapped pallets and aided by the rounded corners of the packaging design, was able to slip down into the center of the pallets, eat to its heart content, and depart without leaving any outward evidence it was there.

Snap traps were placed on top of the pallet rack near where the camera had captured the image and on the following night the rat was captured. The opening around the storm drain was patched to prevent any further rodent incursions.

RESULTS

The deployment of technology, including cameras and remote monitoring devices, is part of the 'stacked effects' needed to win the battle against roof rats as they expand their geographic footprint. The data collected from these devices opens the window into the secretive world of the roof rat and much has been learned.

Camera footage has shown that roof rats will engage with the cameras but avoid control devices (i.e., snap traps, etc.) as if they knew why they're there. Footage also showed roof rats frequently travel along vertical pathways, not just horizontal ones, and they'll avoid traveling over a false ceiling but rather use pipes and wires as a runway to navigate through a structure.

What do clients who have not experienced a roof rat issue need to know about this cryptic pest? Sprague's Roden said clients may not see a roof rat until a significant population has been established.

"Clients need to understand the challenges roof rats present and work with their pest control service provider to proactively address the issue," said Roden. "Roof rats are survivors and often know the design of a building better than facility manager. Gaining the upper hand requires a creative approach and patience."



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Sprague

ROOF RAT HOT SPOTS

Where are roof rats found inside commercial properties? The answer is simple – lots of places. Sprague's Ashley Roden said roof rats are like birds in that they are attracted to structures with high ceilings with open beams and floor to ceiling storage racks. She cautions, however, that they can also be found in drop ceilings, as well as:

- Exposed beams and pipes
- Hidden pipe chases and utility lines
- Wall voids and drop ceilings
- Concrete cinder blocks
- On top of shelving units
- Overhead electrical junction boxes
- On top of or inside equipment (they have been found inside large ovens in commercial bakeries)
- Raised and false floors



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