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Roof rats, a pest of both agriculture and urban areas, verified as present in Palo Verde Valley

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Roof rats (*Rattus rattus alexandrinis*), destructive pests of homes and various agricultural crops, were verified as occurring at several locations around the Palo Verde Valley the past few weeks. This particular rat species was suspected as being present from sightings by various pest control advisors and others for at least the past two years. A rat captured in mid-March was verified to be the roof rat by Dr. Niamh Quinn, a University of Cooperative Extension human-wildlife interactions advisor. This represents the eastern most known California location for this species, although it does occur in Arizona.

In agriculture production systems, roof rats climb trees and eat citrus, pomegranates and other available fruits. This is obviously of concern to our local date and citrus growers. Finding a citrus fruit with a large hole in the side and the interior contents missing is a solid clue that roof rats are present. They can also damage fruits and nuts after harvest by chewing on them and leaving excrement. They are known to burrow into orchard ground to nest.

Damage to structures is much more severe. Roof rats are known to chew through drywall, wood, aluminum, plastic and as well through insulation and gnawing on electrical wires, potentially causing fires.

Roof rats get their name from their tendency to find shelter in the upper parts of buildings. They are sometimes called grey-bellied rats because the fur on the underside is a lighter gray color than the rest of the rat. The roof rat is primarily a species spends 90% of its life off the ground, and can travel very easily in shrubs, trees, vines, and other woody ornaments. It also can traverse on wires.

While rats are primarily active at night, there are some visible clues that can be seen during daylight hours. The most easily noted is fecal droppings, which are about one half inch long, have pointed ends, and are sometimes referenced as 'banana shaped'. Another sign is grease marks on surfaces, created by oils transferring from the fur.

Roof rats look like over-grown sleek mice, having a long pointed nose, large ears that would cover their eyes if bent over their heads, and a tail that is longer than the head and body combined. Norway rats are stockier built, their ears are shorter and won't cover their eyes when bent forward, and their tail is shorter than the head and body. Their fecal droppings look like capsules, and are about three quarters of an inch long.

Control of roof rats can be challenging due to their spending so much of their lives off the ground. Large snap traps have proven to be very effective in trees. In structures, you may need the services of a professional pest control service.

Additional information is available at <http://ipm.ucanr.edu/QT/ratscard.html> and <https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1775-2018.pdf>



Fig. 1. Note the tail is longer than the body (*arrow*), the large ears, and the sleek rather than stocky body shape. *Photo by Suzie Tippit.*