
RACCOONS

Integrated Pest Management In and Around the Home

The adult raccoon (*Procyon lotor*) is a stocky mammal about 2 to 3 feet long and weighs 7 to 30 pounds. It is distinctively marked with a black “mask” over the eyes and is heavily furred with alternating light and dark rings around its tail (Figure 1). Raccoons are active year round but may take cover in dens during periods of severe winter weather.

BIOLOGY AND BEHAVIOR

Raccoons prefer wooded areas near water and natural habitats. They den in hollow trees, ground burrows, brush piles, or rock crevices. This nocturnal animal adapts extremely well to urban and suburban environments, where it often dens in backyards, beneath decks, or in accessible outbuildings. Attics, chimneys, and the spaces beneath houses are also used as dens, if access can be gained. Because they are active mainly at nighttime, raccoons are often present but may go undetected for some time.

Raccoons are omnivorous, eating both plants and animals. Plant foods include all kinds of fruits, berries, nuts, acorns, corn, and other types of grain. Animal foods include crayfish, clams, fish, frogs, snails, insects, turtles, rabbits, muskrats, and the eggs and young of ground-nesting birds, including waterfowl. In urban settings, in addition to feeding on backyard fruits, nuts, and vegetables, they scavenge from garbage cans and compost piles. Pet food left outside overnight ranks high as a food resource, and some people intentionally provide food for raccoons. Bird feeders provide another dependable food source for raccoons.

Young are generally born in April or May, but earlier and later litters are not uncommon. Litter size ranges from

three to six young, averaging about four. Family groups usually remain together for the first year; the year-old young begin to assert their independence the following year when the new litter arrives. Because of the availability of food and den sites, urban and suburban raccoon populations can become very large.

DAMAGE

Common problems occur when raccoons look for nesting sites in buildings. Females in search of nesting sites may rip off shingles, fascia boards, or rooftop ventilators to get into the attic. Once inside the attic, insulation on walls may be torn up and displaced; and insulation on heating and air conditioning ducts may be ripped off and destroyed. Raccoons may begin using an area of the attic for a latrine, and the ceiling beneath may become stained with urine, accompanied by an objectionable odor. Ectoparasites may infest the attic and migrate to other parts of the house. Uncapped chimneys are often used as den sites, as are spaces beneath porches and decks. Doors covering crawl spaces are sometimes damaged in an effort to den beneath the house.

Raccoon damage to gardens is quite common. Sweet corn is particularly desirable. Raccoons will climb the stalk and tear it down to gain access to the corn. Damage usually occurs right before harvest. Other fruits and vegetables in the garden can also be consumed. Raccoons often will roll up newly laid turf when looking for worms and grubs. However, they do not typically dig holes in lawns when looking for food; if you see conical-shaped holes in your yard, this is likely the result of skunk foraging. For more information on skunks, see Pest Note:



Figure 1. Juvenile raccoon. (L. Fitzhugh, UC WFCB)

Skunks. Raccoons are skilled fishers; as such, they occasionally prey upon koi in backyard ponds.

Raccoons are known to carry a number of diseases and internal parasites. The raccoon roundworm, an infection spread to people by the accidental ingestion or inhalation of roundworm eggs from raccoon feces, has caused increased concern in recent years. Roundworm infection can cause serious disabilities, and young children are thought to be most susceptible. Raccoons are also carriers of rabies and distemper. Be sure pets are properly vaccinated to mitigate this threat.

LEGAL STATUS

In California raccoons are classified as furbearers. The fur harvest season is set by the California Department of Fish and Wildlife, which further determines when and how raccoons may be taken. Raccoons causing damage may be taken at any time by legal means. The California Department of Fish and Game Regulations prohibit the relocation of raccoons and other wildlife without written permission of the Department. For further information, contact the Department of Fish and Wildlife.

PEST NOTES

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MANAGEMENT

There are various approaches to resolving raccoon problems. In some communities the situation has become so severe that it is beyond the ability of the individual homeowner to solve the problem. In these instances, a community effort may be the only effective solution. City parks, green belts, golf courses, and highway and street plantings may serve as reservoirs for raccoons by providing them with den sites and travel routes. Storm drains and street and road culverts are commonly used as dens. Since these areas are under the control or management of the city, it is often imperative that the city be involved in finding solutions. The city can also invoke and enforce a ban on feeding raccoons, help to educate the public on the best ways to handle an area-wide urban raccoon problem, and discourage individuals from live trapping and relocating animals, which only exacerbates the problem.

Detection

Raccoons in the garden may be observed at night or they may come up to a sliding glass door and peer inside. Evidence of feeding, tracks, and droppings may provide clues to their visits (Figure 2). Of course, noises on the roof, in the chimney, or in the attic may also indicate their presence. An occasional visit by a raccoon or a family of raccoons may not be a cause for major concern; but if these visits become commonplace and raccoons are also climbing on your roof, some action is probably warranted.

Habitat Modification

Raccoons are attracted to gardens or homes because they offer a food resource and potential den sites. Efforts to reduce available food can include using metal garbage cans with secure lids. To prevent raccoons from tipping over garbage cans, place the cans in a rack or tie them to a secure post. A bungee cord or wire can also be used to secure lids. Pet food left outdoors should be removed before nightfall to keep raccoons from feeding from pet dishes. Pick up fallen fruits and nuts frequently. Never intentionally provide

food for raccoons and discourage your neighbors from this practice as well; it only attracts more raccoons.

If possible, remove woodpiles or other materials raccoons can den in or under. Thinning out overgrown shrubbery will reduce cover. To reduce access to the roof, tree branches that overhang rooftops should be cut back; if possible, leaving a gap of at least 5 feet between the roof and the tree. Trellises and arbors attached to homes may facilitate access to the roof and consideration should be given to their removal. While habitat modification is often helpful, it is rarely a total solution.

Exclusion

Exclusion is the key to eliminating den sites but remember that raccoons are powerful animals and can become vicious when cornered. Their front paws are handlike, with toes that are long, flexible, and considerably dexterous. Raccoons are known to unhook simple latches.

Prevent access to chimneys by covering them with a spark arrester that meets the fire code of your area. These caps will keep raccoons, tree squirrels, rats, and birds out of the chimney. The caps should be tightly secured to prevent raccoons from pulling them loose. Be sure that no animals are currently inside the chimney before covering the opening. If raccoons are currently nesting in your chimney, hiring professionals is often the only effective option for removing them.

Open spaces beneath structures, such as porches, decks, and garden and tool sheds, should be tightly screened with 10-gauge 1/4- or 1/3-inch galvanized hardware mesh. The bottom edge of the wire should be buried at least 6 inches deep, extended outward for 12 inches, and then back-covered with soil. Such measures will exclude not only raccoons but also skunks, opossums, squirrels, and rats.

Ordinary fences will not keep raccoons from gardens or yards, as the animals will either dig under or climb over them. Raccoons readily locate weak-



Figure 2. Raccoon tracks. (P. Gorenzel, UC WFCB)

nesses in fences and will rip off loose boards or enlarge holes in wire fences for easy access. By exploiting the raccoon's sensitivity to electric shock, an ordinary fence can be made raccoon-proof by adding a single electrified strand of wire 8 inches above the ground and about 8 inches out from the base of the fence. A pulsating high-voltage, low-amperage fence charger, similar to that used for confining cattle, is used to electrify the fence. Electrified wire wrapped around the trunk of a tree will discourage climbing. A low, two-wire electric fence can be very effective for excluding raccoons from sweet corn, melons, and other highly preferred crops. The two wires are fastened on evenly spaced wooden posts; one wire is 6 inches above the ground and the other is 12 inches above the ground. The fence charger needs to be activated only from dusk to dawn. This type of low electric fence can be installed around a newly laid sod lawn to prevent raccoons from rolling back the new sod in search of insects or grubs. The fence is removed once the turf has taken root. Such fences around ponds are sometimes used to protect koi and goldfish from raccoons.

Before installing an electric fence, explore the pros and cons of its use; and, if used, be sure the electric charger is appropriate for the task. Remember that electrified fences are not appropriate for all situations, must be installed properly, and should always be identified with warning signs.

Frightening

A variety of materials, gadgets, and devices designed to frighten raccoons and other wildlife are on the market. These include flashing lights, sound-producing devices, and water-squirting units, all of which can be activated by motion detectors. In addition, radios, scarecrows, and flags and windmills that spin or flutter in the wind have been used. These devices can be effective for a few days. However, raccoons often quickly learn that there is no threat associated with these devices, at which time they cease to be effective.

Repellents

There are a few commercial chemical repellents available to repel various forms of wildlife, but none have been effective for raccoons. Mothballs, blood meal, and a wide variety of other home remedies have been tried to no avail, as raccoons are quick to adapt.

Trapping

For the average homeowner unfamiliar with trapping raccoons, it is advisable to hire a professional wildlife control operator to remove the animal. The professional will have the proper equipment to accomplish the task and will be able to tell if a trapped female is nursing its young. This is very important because you don't want to leave young behind to starve. The professional will also have the means to euthanize the animals, since releasing them elsewhere is prohibited by law (unless a permit to relocate the raccoon has been obtained from California Department of Fish and Wildlife). Released animals may return or present a problem to someone else; and, in fact, the animal you have trapped may have been deliberately released near you. Release of animals is a major factor in the dissemination of numerous diseases to other animals including pets and humans. Some counties have trapping programs for nuisance animals, including raccoons. Contact your local agricultural commissioner to see if this service is available.

Raccoons are fairly easy to trap; however, occasionally a clever and cunning



Figure 3. Raccoon trap. (A. Tunberg, UC Davis)

animal will be quite elusive. A live cage-type trap is usually the preferred trap for homeowners (Figure 3), although others are available that may be used by professionals to capture the more difficult animals. The single-door trap should be sturdily constructed and its dimensions should be at least 10 x 12 x 32 inches. Larger 15 x 15 x 36 inch traps are even better. Canned tuna or canned fish-flavored cat food make excellent baits but may also attract nontarget cats and dogs. To avoid catching cats, try using marshmallows, grapes, prunes, peanut butter, or sweet rolls. Small pieces of bait should be placed along a path leading up to the trap. The rear of the trap should be covered with 1/2-inch wire mesh to prevent the raccoon from reaching through the trap from the outside to steal the bait. Traps should be well anchored to the ground or weighted to prevent the animal from tipping the trap over to obtain the bait. Traps should be set at night and closed in the morning to avoid trapping nontargets. Remember, raccoons are intelligent and clever animals. They are also powerful and can be vicious when trapped or cornered.

Other Control Methods

Dogs kept outdoors may alert you to the presence of raccoons and may frighten some away; however, some raccoons will attack dogs and cause serious injuries. Since they are usually active at night when they are most difficult to see, shooting is rarely the solution to nuisance raccoons. Additionally, most municipalities do not allow the discharge of firearms within

their boundaries. However, in rural areas, shooting can sometimes provide an effective solution to a persistent raccoon problem.

REFERENCES

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AUTHORS: Roger A. Baldwin, Wildlife, Fish, and Conservation Biology, UC Davis. Revised based on a previous version authored by T.P. Salmon, D.A. Whisson and R.E. Marsh.

TECHNICAL EDITOR: K Windbiel-Rojas
EDITOR: K. Beverlin

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University of California
2801 Second St.
Davis, CA 95618-7774



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WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original, labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

Pesticides applied in your home and landscape can move and contaminate creeks, rivers, and oceans. Confine chemicals to the property being treated. Avoid drift onto neighboring properties, especially gardens containing fruits or vegetables ready to be picked.

Do not place containers containing pesticide in the trash or pour pesticides down the sink or toilet. Either use the pesticide according to the label, or take unwanted pesticides to a Household Hazardous Waste Collection site. Contact your county agricultural commissioner for additional information on safe container disposal and for the location of the Household Hazardous Waste Collection site nearest you. Dispose of empty containers by following label directions. Never reuse or burn the containers or dispose of them in such a manner that they may contaminate water supplies or natural waterways.

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