

Wildlife Damage Management Series



Raccoons

Corey M. Huxoll, Terry A. Messmer and Mike Conover

USU Extension in cooperation with:

CNR—Quinney Professorship for Wildlife Conflict Management
Jack H. Berryman Institute
Utah Division of Wildlife Resources
Utah Department of Agriculture and Food
USDA/APHIS Animal Damage Control

Quinney Professorship for Wildlife Conflict Management
Utah State University Extension Service and College of Natural Resources

Department of Fisheries and Wildlife
Jack H. Berryman Institute
Utah State University, Logan, Utah

August 1998

NR/WD/002

Raccoons (*Procyon lotor*) are found across the United States largely due to their excellent ability to adapt and take advantage of new habitats. Raccoons, although not native to Utah, are abundant throughout much of the state. They are most commonly found in wooded areas along rivers, marshes or lakes. In urban areas, raccoons will make dens in attics, chimneys, under houses, in abandoned buildings, and in woodpiles.

Raccoons, like most animals, are opportunistic and seek a lifestyle that has the greatest reward for the least effort. Urban environments often present such opportunities and raccoons have been quick to adapt. Extension and resource agency professionals estimate that raccoons cause 60–70% of all urban wildlife problems in Utah.

Raccoons are a grizzled gray in color and are easily distinguished by their bushy tails with alternative black or gray rings, and black mask across their faces. The print of the hind foot faintly resembles that of a small child (Figure 1).



Figure 1. Raccoon paw prints

RACCOON PROBLEMS

Most towns and cities in Utah have raccoons living within city limits. Because raccoons are active by night (nocturnal), they are seldom seen. Of all the wild animals that have adapted to city life, raccoons are probably the most destructive.

Raccoons cause problems when they lose their fear of humans and move into urban areas to live. Problems include feeding in garbage cans, establishing dens in chimneys and plugging them with nest material, tearing off shingles or fascia boards to enter an attic or wall space, or causing damage to gardens and fruit trees. Raccoons also may carry fleas, ticks, lice, distemper, mange, rabies, and canine and feline parovirus. The results of recent blood tests conducted on raccoons in Utah indicated that over 80% of those tested had been exposed to rabies as indicated by the presence of a rabies titer.

Raccoon feces may also contain the roundworm egg (*Baylisacaris procyonis*). Humans, especially children, that come into contact with raccoon feces containing eggs of this roundworm can also become infected. Clinical symptoms depend on the number of roundworm larvae present in the body and their location. If the larvae migrate to the eyes or brain, blindness or death can be the end result.

Raccoons can also threaten the health of other mammals. They can carry Aleutians disease which is a virus that affects other fur-bearing animals. As such, it poses a major threat to Utah's fur industry. In addition, raccoons entering the buildings where mink are raised may eat off the mink's feet

through the wire mesh in the bottom of their cages. The injured mink usually die soon after the injury.

Raccoons also cause problems in rural areas by raiding chicken coops or poultry farms and killing many birds, only consuming a portion of the total number killed. Damage to agricultural grain crops and raccoon predation on bird nests are other common problems.

BIOLOGY AND BEHAVIOR

Adult raccoons in Utah may weigh from 10 to 30 pounds, are 2 to 3 feet in length, and are about 16 inches tall at the shoulder. Adult males may occupy territories of 3 to 20 square miles, compared to 1 to 6 square miles for females.

Raccoons do not hibernate during the winter, but may sleep several days to a couple of weeks during extreme cold periods. They are nocturnal and solitary except when breeding or caring for their young.

Breeding usually occurs from January to March, with females mating only once a year. Usually less than half of yearling females will breed, while adult females normally breed every year.

After a gestation period of about 63 days, an average litter of 3 to 5 young are born usually in April or May. The young weigh about 2 ounces at birth, open their eyes at about 3 weeks, and are weaned from 2 to 4 months of age around late summer. Some young may disperse in late autumn, but all are driven away by the female before her next litter is born.

A female with young may attack if cornered, so caution should be taken if a mother and young are encountered in an attic or other enclosed space. Pet raccoons may also attack humans. Hence raccoons should not be kept as pets, especially if there are small children in the house who could not defend themselves if attacked.

Raccoons generally have a short life span. Fifty to seventy percent of all populations consist of raccoons under one year old. Raccoons rarely live to the age of 12 years in the wild.

Raccoons are omnivorous and will eat either plants or animals, depending on what is available. Plant foods may include fruit, vegetables (especially sweet corn) or nuts. Animal foods may include grubs, crickets, grasshoppers, large insects, crayfish, clams, frogs, worms, fish, turtles, bird eggs and nestlings, and small mammals such as squirrels, rats, or mice. In urban areas, raccoons may feed on dog or cat food, fruit on trees, garden vegetables, or trash can garbage.

LEGAL STATUS

Raccoons are not protected under state law in Utah. As such no hunting or trapping license is required to take this animal. Utah state law prohibits possessing a live raccoon without a permit. Possession permits may be issued through the Utah Department of Agriculture if appropriate justification is provided.

CONTROL

IDENTIFICATION OF DAMAGE

The first step in controlling any urban wildlife problem is to determine which animal(s) are causing the damage. Evidence of raccoon activity may include tipping over trash cans and scattering trash, tearing up shingles or fascia boards to enter an attic or wall space, or plugging chimneys with nest material. Raccoons in a chimney or attic may “whine,” “growl,” or make noises that indicate their presence.

Raccoons may damage gardens or fruit trees, as evidenced by remains of partially eaten fruit under or still on the tree. Raccoons usually pull over cornstalks or pull down ears, then partially husk the ears prior to eating the corn off the cob. They damage melons by digging a small hole and hollowing out the contents. Raccoons may also kill chickens or other poultry or damage commercial farm crops in rural areas.

Raccoon activity may be identified by the presence of distinctive tracks around the damage site (Figure 1). The hindprint is 3¼ to 4½ inches long, much longer than wide, and the foreprint is shorter, about 3 inches long, and about as wide as long. The average distance between prints of a walking raccoon is 14 inches, with the left hindfoot almost beside the right forefoot. Five toes and claws are visible on all feet. Skunk tracks are smaller, with the hindprint being 1¼ to 2 inches long, and the foreprint 1 to 1¾ inches long. Flour may be spread at damage sites to reveal tracks from night activity.

Once it has been determined that a raccoon is causing the problem several measures can be taken to alleviate the damage. These measures may include habitat modification, exclusion, the use of chemical repellents, and population reduction.

HABITAT MODIFICATION

Raccoon problems may be alleviated by making the habitat, or area around the site, less favorable to raccoons. Because raccoons have fairly large territories, a neighborhood or community-wide effort may be more successful at alleviating the problems. Removing potential sources of food, water, and shelter is the first step in eliminating the problem. This would include removing pet food and water during the night or keeping the yard clean and woodpiles tacked neatly. Garbage cans should also be tied down to a solid structure so they cannot be overturned, and lids should be tight fitting, tied down, or weighted down to deny access to garbage.

EXCLUSION

Excluding raccoons may be the most successful strategy to prevent or eliminate raccoon damage to buildings, poultry yards, milk barns, and gardens.

! Damage to fascia boards or shingles may be prevented by eliminating access routes to the roof. The removal of tree limbs overhanging the roof will deny raccoons access to roofs.

- ! Access to chimneys may be denied by covering the chimney opening with a heavy metal screen or with a sheet metal cap.
- ! Damage in poultry yards can usually be reduced by excluding the raccoons from the poultry during the night. This may be done by moving the poultry into buildings at night and tightly closing all doors, windows, and sealing any openings larger than 3 inches in diameter.
- ! Woven wire fencing alone may not be sufficient to keep raccoons out of gardens or poultry pens. Raccoons will either climb, tear a hole, or burrow under most fencing. If a fence is already present, the addition of a single wire about 8 inches from the fence and 8 inches above the ground electrified with a charger will provide an effective deterrent. Use a charger with a seal of approval from Underwriters Laboratories Inc. (UL), and do not use it where children or the public might come into contact with it. After you have decided to use an electric fence be sure to attach the appropriate warning signs.

When no other fences are present, two electrified wires, one 6 inches and the other 12 inches above ground, mounted on insulated stakes or poles, will accomplish the same results (Figure 2). A single strand from 6 to 8 inches about the ground may be sufficient, but two wires will provide added insurance. The fence only needs to be “on” at night.

- ! A woven wire mesh fencing may be effective at keeping out raccoons. However, the fence should be 6 feet high, with the top foot bent outward from the protected area to discourage raccoons from climbing over. Adding an electrified wire to the top of the fence will increase effectiveness. To prevent raccoons from burrowing underneath a fence, a 2 foot wire mesh may be buried to a depth of 6 inches and the remaining 18 inches buried outward at that depth.

CHEMICAL REPELLENTS

A variety of materials, including dog or predator feces, blood meal, dirty laundry (human scent), and mothballs have been tested to repel raccoons; however, none have been proven to be effective. Research suggests that mothballs (naphthalene) or PDB crystals (paradichlorobenzene) may be effective repelling mammals from enclosed spaces such as chimneys, attics, wall spaces, or crawl spaces. Use of these chemicals may encourage raccoons to leave the area so that other exclusion techniques may be implemented.

BEHAVIORAL APPROACHES

The use of scare tactics or devices, such as propane cannons that make loud “booms,” pyrotechnics (fireworks), scarecrows, lights, or dogs are not effective or practical in an urban area. Raccoons usually figure out that scare tactics pose no physical threat and ignore them.

POPULATION MEASURES

If no other control methods are effective, the problem animals may need to be removed from the area. There are no poisons or fumigants currently registered for raccoon control. Trapping can be effective at removing the problem animals. Leghold (steel-jaw) traps or Coni-bear (body-gripping) traps may be used on rural sites, but should never be used in an urban area because they are non-selecting and there is a risk that a neighbor’s cat, dog, or child might be injured. In

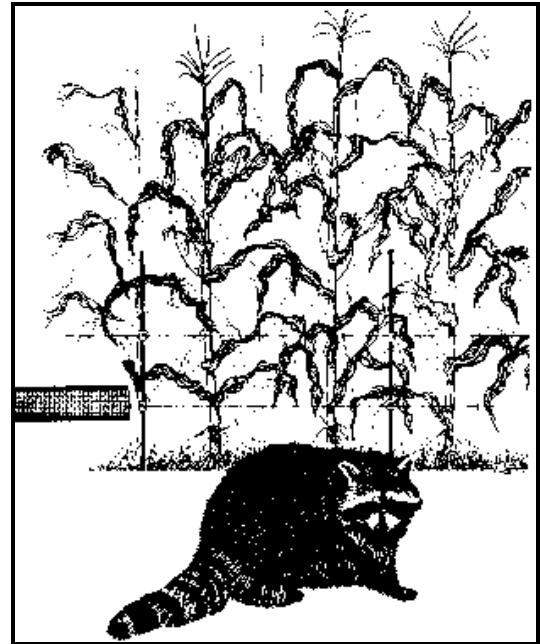


Figure 2. Adding a two-wire fence will help keep raccoons out of field or garden crops. Inset shows the “ribbon-type” electric fence in place of the single-wire type. This ribbon fence is more visible to raccoons and other wildlife and may improve control.

addition, some city ordinances may further restrict the use of leghold or Conibear in urban areas.

Cage-type live traps that are at least 10 inches wide by 12 inches high by 32 inches long and constructed with heavy materials are the best way to capture problem raccoons in urban settings. The traps may be baited with sardines, fish, meat, or fruit. Baiting with peanut butter on bread or fruit, vanilla extract on bread, or just fruit in an urban area should decrease the likelihood of catching a cat. The trap should be placed on a sheet of plywood or other hard surface, as raccoons will dig up all the grass or anything in reach after being trapped. Place the trap so that the back is against a tree, wall, or other solid object. Lastly, the trap may have to be covered in burlap or a tight wire mesh to prevent animals from reaching through and stealing the bait.

Many homeowners prefer to release raccoons unharmed in a distant location “where the animal can find a good home.”

Studies have shown that relocated raccoons tend to create problems in new areas. There is growing opposition to relocating animals because of the possibility of disease spreading from one population (an urban one) to another (a rural one). In addition, research indicates that a relocated raccoon may be forced out of the new area by the other raccoons already present. As such it may not have a good change of survival. Local private pest control companies, humane society or animal shelter may be willing to dispose of the raccoon for you.

Leghold or Conibear traps may be effective at controlling problem raccoons in rural areas. A No. 1½ to 2 coil-spring trap is suggested for raccoons. Conibear traps will usually kill the trapped animal instantly. Trapping with leghold or Conibear traps is complicated and should not be attempted without proper instruction. There is a good chance that stray cats, dogs, or other wildlife will get caught and injured if the trap is placed incorrectly.

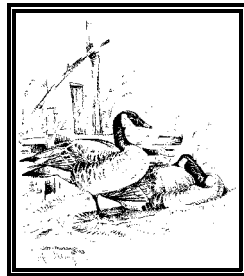
Shooting any animal with a firearm within city limits is illegal in Utah. However, in rural areas, shooting a problem raccoon may be effective at preventing further damage.



FOR FURTHER INFORMATION, CONTACT:

USDA/APHIS Wildlife Services
P.O. Box 26976
Salt Lake City UT 84126
(801-975-3315)

Extension Wildlife Specialist
Department of Fisheries and
Wildlife
Utah State University
Logan UT 84322-5210
(435-797-3975)



*The Berryman
Institute*

Utah Division of Wildlife Resources
1596 West North Temple
Salt Lake City UT 84116-3154
(801-538-4700)

Utah State University Extension is an affirmative action/equal employment opportunity employer and educational organization. We offer our programs to persons regardless of race, color, national origin, sex, religion, age or disability.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert L. Gilliland, Vice-President and Director, Cooperative Extension Service, Utah State University, Logan, Utah.(EP/01-99/DF)

REFERENCES

- Boggess, E. K. 1983. Raccoons in Prevention and Control of Wildlife Damage. Great Plains Agricultural Council Wildlife Resources Committee, University of Nebraska-Lincoln Cooperative Extension Service, Lincoln, Neb.
- Clay, W. H. 1982. Controlling Raccoon Damage. Texas Rodent and Predatory Animal Control Service, San Antonio, Tex.
- Conover, M. R. 1987. Reducing Raccoon and Bird Damage in Small Corn Plots. *Wildl. Soc. Bull.*, 15(2):268-272.
- Logsdon, H. S., and C. R. Fox. 1981. Raccoons. Wildlife Fact Sheet 4, University of New Hampshire Cooperative Extension Service, Durham, N.H.
- Whitaker, Jr., J. O. 1980. The Audubon Society Field Guide in North American Mammals. Alfred A. Knopf Inc., New York City, N.Y.
- Raccoon line drawings by Charles Schwarz, Missouri Department of Conservation.