Raccoons

Figure 1. Raccoon (*Procyon lotor*). Photo by Greg Clements.

**OBJECTIVES**

1. Demonstrate ability to educate clients about control options.
2. Describe typical sets used to capture raccoons.
3. Identify various risks involved with working with raccoons.

**SUMMARY OF DAMAGE PREVENTION AND CONTROL METHODS**

**HABITAT MODIFICATION**

Remove obvious sources of food or shelter around the premises

Close outbuilding and exterior laundry room doors

**EXCLUSION**

Usually the best method for coping with raccoon damage

**FRIGHTENING DEVICES**

Effective for a short time

**REPELLENTS**

- Allyl isothiocyanate
- Capsaicin
- Oils, black pepper
- Havahart Critter Ridder

**TOXICANTS**

None registered

**FUMIGANTS**

None registered

**SHOOTING**

- .22 caliber
- Shotgun

**TRAPPING**

- No. 1 longspring
- 1.5 coilspring
- Species specific traps
- 10 x 12 x 32 single-door cage/box traps
- 10 x 12 x 42 double-door cage/box traps

**OTHER CONTROL METHODS**

- Direct capture
- Chimney removal methods
- One-way doors
SPECIES PROFILE

IDENTIFICATION

Raccoons (Procyon lotor) are also called “coons.”

PHYSICAL DESCRIPTION

Raccoons are distinctively marked, with a prominent black “mask” over the eyes and a heavily furred, ringed tail. They are a grizzled salt-and-pepper gray and black above, although some individuals are strongly washed with yellow. Raccoons from prairie areas of the western Great Plains are paler in color than those from eastern portions of the region.

Raccoons are stocky mammals about 2 to 3 feet long, weighing 10 to 30, rarely to 50 pounds.

SPECIES RANGE

Raccoons are found throughout the US, with the exception of the higher elevations of mountainous regions and some areas of the arid Southwest (Figure 2). Raccoons are more common in the wooded eastern portions of the US than in the more arid western plains.

VOICE AND SOUNDS

Raccoons emit a number of sounds including chirps, coos, happy chatter, distress call, purr, and complaint. Visit the website http://www.fcps.edu/islandcreekes/ecology/raccoon.htm to listen to audio samples.

TRACKS AND SIGNS

Raccoons usually leave behind plenty of signs of their presence. Tracks (Figure 3) usually turn to smudges when climbing up down spouts. Latrines (where raccoons regularly defecate, Figure 4) tend to be in areas open to the sky such as roofs, sand boxes, and fallen trees.

Figure 2. Distribution of the raccoon in North America. Image by PCWD.

Figure 3. Five long rear toes and the “hand-like” front prints are characteristic of raccoon tracks. Except in soft mud or sand, the “heel” of the hind foot seldom shows. Image by PCWD.

Figure 4. Raccoon latrine. Photo by Stephen M. Vantassel.
GENERAL BIOLOGY

Raccoon populations consist of a high proportion of young animals, with 1/2 to 3/4 of fall populations normally composed of animals less than one year in age. Raccoons may live as long as 12 years in the wild, but such animals are extremely rare.

REPRODUCTION

Raccoons breed mainly in February or March, but mating may occur from December through June, depending on latitude. The gestation period is about 63 days. Most litters are born in April or May but some late-breeding females (typically those who lost the first litter) may not give birth until June, July, or August. Only one litter of young is raised per year. Average litter size is three to five young that first open their eyes at about 3 weeks and are weaned sometime between 2 and 4 months of age.

Less than half of the females in a population will breed the year after their birth. Most adult females breed every year.

Family groups of raccoons usually remain together for the first year with the young often denning for the winter with the adult female. The family gradually separates during the following spring as the young become independent.

NESTING COVER

Raccoons prefer crevices for their dens. Den sites may include, hollow trees, ground burrows, brush piles, muskrat houses, barns and abandoned buildings, dense clumps of cattail, haystacks, rock crevices, sewers, under sheds and porches, chimneys, and attics.

BEHAVIOR

Raccoons are nocturnal. Adult males occupy territories of 3 to 20 square miles, compared to 1 to 6 square miles for females. Adult males tend to be territorial and their ranges overlap very little.

Raccoons do not truly hibernate, but they do “hole up” in dens and become inactive during severe winter weather. In the southern US they may be inactive for only a day or 2 at a time, whereas in the north this period of inactivity may extend for weeks or months. In northern areas, raccoons may lose up to half their fall body weight during winter as they utilize stored body fat.

HABITAT

Raccoons prefer hardwood forests near water. Raccoons also occur around farmsteads and livestock watering areas, far from naturally occurring bodies of permanent water.

FOOD HABITS

Raccoons are omnivorous, eating both plants and animals. Plant foods include fruits, berries, nuts, acorns, corn, and other types of grain. Animal foods are crayfish, clams, fish, frogs, snails, insects, turtles and their eggs, mice, rabbits, muskrats, and the eggs and young of ground-nesting birds and waterfowl.

LEGAL STATUS

Raccoons are protected furbearers in most states with seasons established for running, hunting, or trapping. Most states have provisions for landowners to control furbearers that are damaging their property. Check with your state wildlife agency before using any lethal controls.

DAMAGE IDENTIFICATION

Raccoons may cause damage or nuisance problems in a variety of ways. Raccoons are superb climbers so will frequently enter buildings by climbing, trees, down spouts or by shimmying up the side of a building. Look for smudge or scratch marks on trees or at the corners of buildings (Figure 5). Latrines on
roofs and in attics are classic signs of raccoon presence.

**DAMAGE TO STRUCTURES**

Raccoons cause damage or nuisance problems around houses and outbuildings when they seek to gain entrance to attics or chimneys or when they raid garbage in search of food. In many urban and suburban areas raccoons learn that uncapped chimneys make adequate substitutes for more traditional hollow trees for denning sites, particularly in spring. In extreme cases, raccoons may tear off shingles or facia boards in order to gain access to an attic or wall space. Raccoons only need a 4 inch gap to enter a space (Figure 6).

**DAMAGE TO LIVESTOCK AND PETS**

Raccoons occasionally kill poultry and leave distinctive signs. The heads of adult birds usually are bitten off and left some distance from the body. The crop and breast may be torn and chewed, the entrails sometimes eaten, and bits of flesh left near water. Young poultry in pens or cages may be killed or injured by raccoons reaching through the wire and attempting to pull the birds back through the mesh. Legs or feet of the young birds may be missing. Eggs may be removed completely from nests or eaten on the spot with only the heavily cracked shell remaining. The lines of fracture will normally be along the long axis of the egg, and the nest materials are often disturbed. Raccoons also can destroy bird nests in artificial nesting structures such as bluebird and wood duck nest boxes.

**DAMAGE TO LANDSCAPES**

Raccoons can cause considerable damage to garden or truck crops, particularly sweet corn. Raccoon damage to sweet corn is characterized by many partially eaten ears with the husks pulled back. Stalks also may be broken as raccoons climb to get at the ears. Raccoons damage watermelons by digging a small hole in the melon and then raking out the contents with a front paw.
Raccoons also can be a considerable nuisance when they roll up freshly laid sod in search of earthworms and grubs. They may return repeatedly and roll up extensive areas of sod on successive nights. This behavior is particularly common in mid to late summer as young raccoons are learning to forage, and during periods of dry weather when other food sources are less available.

HEALTH AND SAFETY CONCERNS

Raccoons are known for diseases that impact public health, namely rabies and raccoon roundworm.

The incidence of reported rabies in raccoons and other wildlife has increased dramatically over the past 30 years. This increase has been related to greater testing, greater awareness, and higher numbers of raccoons. Raccoons have recently been identified as the major wildlife host of rabies in the US, primarily due to increased prevalence in the eastern US.

Raccoon roundworm (Baylisasacris procyonis) can cause blindness, brain damage, and death. Raccoons are not the only carrier of this disease but they are the definitive host. Avoid disturbing feces and items contaminated with feces. Consult the Module 3, Wildlife Diseases, to learn more about this infection and how to prevent it in humans.

DAMAGE PREVENTION AND CONTROL METHODS

INTEGRATED PEST MANAGEMENT

TIMING, ECONOMICS, AND METHODS

Raccoons can be controlled whenever they are causing damage.

HABITAT MODIFICATION

There are no practical means of modifying habitat to reduce raccoon depredations, other than removing any obvious sources of food or shelter which may be attracting the raccoons to the premises. Raccoons forage over wide ranges, and anything other than local habitat modification to reduce raccoon numbers is not a desirable technique for reducing damage.

Protect property by removing as many potential food sources as possible. Trash cans, preferably metal, should have tight-fitting lids that remain attached even if tipped over. Loose lids can be secured with bungee cords or wire. The best solution is to locate trash containers inside secure buildings.

Use only plant and vegetable matter (no meat, eggs, fats, or oils) in compost piles to avoid attracting raccoons, opossums, skunks, and other scavengers. Avoid leaving food and water out overnight for pets. Put free-ranging poultry in fenced, predator-proof runs overnight. Avoid planting sweet corn patches near creek bottoms or other wooded areas.

Both raccoons and opossums eat birdseed, so hang birdfeeders on a wire between trees or on a baffled pole to prevent raiding. Reduce the amount of seed that falls to the ground by avoiding the use of mixed seed (use 1 type of seed per feeder) and using feeders that recapture fallen seed.

Raccoons sometimes will roll up freshly laid sod in search of worms or grubs. If sodded areas are not extensive, it may be possible to pin the rolls down with long wire pins, wooden stakes, or nylon netting until the grass can take root, especially if the damage is restricted to only a portion of the yard, such as a shaded area where the grass is slower to take root. In rural areas, use of electric fences may be effective.

Sod-turning behavior is most prevalent in mid-to late summer when family groups of raccoons are learning to forage. Homeowners may be able to avoid problems by having the sod installed in spring or early summer. In most cases, removal of the problem raccoons is usually necessary. Application
of grub control insecticides is only effective if grubs are controlled prior to the start of the damage.

EXCLUSION

Exclusion usually is the best method of coping with raccoon damage.

Damage to sweet corn or watermelons can effectively be stopped by excluding raccoons with a single or double hot-wire arrangement (Figure 7). The fence should be turned on in the evening before dusk, and turned off after daybreak. Electric fences should be used with care and appropriate caution signs installed.

Wrapping filament tape around ripening ears of corn (Figure 8) or placing plastic bags over the ears is an effective method of reducing raccoon damage to sweet corn. In general, tape or fencing is more effective than bagging. When using tape, it is important to apply the type with glass-yarn filaments embedded within so that the Raccoons cannot tear through the tape. Taping is more labor-intensive than fencing, but may be more practical and acceptable for small backyard gardens.

Figure 7. Electric fences (where legal) are effective in protecting property from raccoon entry. Image by PCWD.

Figure 8. Wrapping a ripening ear of sweet corn with reinforced filament tape as shown can reduce raccoon damage by 70% to 80%. It is important that each loop of the tape be wrapped over itself so that it forms a closed loop that cannot be ripped open by the raccoon. Image by PCWD.

Poultry damage generally can be prevented by excluding the raccoons with tightly covered doors and windows on buildings or mesh-wire fences with an overhang surrounding poultry yards. Raccoons are excellent climbers and are capable of gaining access by climbing conventional fences or by using overhanging limbs to bypass the fence. A “hot wire” from an electric fence charger at the top of the fence will greatly increase the effectiveness of a fence for excluding raccoons.
Store garbage in metal or plastic containers with tight-fitting lids to discourage raccoons from raiding. If lids do not fit tightly, it may be necessary to wire, weight, or clamp them down to prevent raccoons from lifting the lid to get at garbage. Secure cans to a rack or tie them to a support to prevent raccoons from tipping them over. Prevent raccoon access to chimneys by securely fastening a commercial cap of sheet metal and heavy screen over the top of the chimney (Figure 9). Raccoon access to rooftops can be limited by removing overhanging branches and by wrapping and nailing sheets of slick metal at least 3 feet (90 cm) square around corners of buildings. This prevents raccoons from being able to get a toehold for climbing. While this method may be practical for outbuildings, some clients may consider it unsightly and generally unacceptable for their homes. It is more practical to cover chimneys or other areas attracting raccoons to the rooftop or to remove the offending individual animals than to completely exclude them from the roof. Homeowners attempting to exclude or remove raccoons in the spring and summer should be aware of the possibility that young may also be present.

Do not complete exclusion procedures until you are certain that all raccoons have been removed from or have left the exclusion area. Raccoons frequently will use uncapped chimneys as natal den sites, raising young on the smoke shelf or the top of the fireplace box until weaning. Homeowners with the patience to endure several weeks of scratching, rustling, and chirring sounds will normally be rewarded by the mother raccoon moving the young from the chimney when she begins to wean them. Homeowners with less patience can often contact a pest removal or chimney sweep service to physically remove the raccoons. In either case, raccoon exclusion procedures should be completed immediately after the animals have left or been removed.

Frightening Devices

Although several techniques have been used to frighten raccoons, particularly in sweet corn patches, none has been proven to be effective over a long period of time. Frightening techniques include the lights, radios, dogs, scarecrows, plastic or cloth streamers, aluminum pie pans, tin can lids, and plastic windmills.

All of these may have some temporary effectiveness in deterring raccoons, but none will provide adequate long-term protection in most situations.

Repellents

Some nuisance animal control experts report that coyote urine and Raccoon Eviction Fluid produced by On Target and Wildlife Control Supplies has been reported to be very effective against female raccoons with young. Capsaicin, oil of black pepper, and piperine are active ingredients in products such as...
as “Havahart Critter Ridder” and reportedly provide some repellent qualities.

**TOXICANTS**

No toxicants are registered for raccoon control.

**FUMIGANTS**

No fumigants are registered for raccoon control.

**SHOOTING**

Under normal circumstances, raccoons are seldom seen during the day because of their nocturnal habits. Shooting raccoons can be effective at night with proper lighting. Trained dogs can be used to tree the raccoons first. A .22 caliber rifle will effectively kill treed raccoons if shot placement is restricted to the raccoon’s head.

Many states have restrictions on the use of artificial light and/or light strength (voltage) to spot and shoot raccoons at night, and shooting is prohibited in most towns and cities. Check with state and local authorities before using any lethal controls for raccoons. Alabama regulation 220-2-.27 allows a property owner or tenant to remove one rabbit per incident that is causing damage to said individual’s property without a permit.

**TRAPPING**

Raccoons are relatively easy to catch in traps, but it takes a sturdy trap to hold one. For homeowners with pets, box/cage-traps (Figure 10) are usually the preferable alternative to foothold traps.

**CAGE TRAPS**

Cage and box traps for raccoon should be at least 10 x 12 x 32 inches and well-constructed with sturdy materials. They can be baited with canned fish-flavored cat food, sardines, fish, or chicken. Place a pile of bait behind the treadle and scatter a few small bits of bait outside the opening of the trap and just inside the entrance. Traps with a single door should be placed with the back against a wall, tree, or other object. The back portion of the trap should be tightly screened with ½-inch or smaller mesh wire to prevent raccoons from reaching through the wire to pull out the bait.

Figure 10. Note the sections of newspaper underneath the cage trap. While raccoons may damage the paper, the paper will reduce the chances of droppings and urine staining the deck. Photo by Stephen M. Vantassel.

Pay special attention to the area around the trap for at least 12 inches; cage trapped raccoons will reach for anything they can and pull it into the trap. Raccoons will pull up shingles, grass, dirt, siding, garden hoses and anything else. Many WCOs have discovered this fact too late. Cage traps with ½ x 1-inch mesh, particularly in the lower portions of the trap, help reduce the risk of this problem. Traps should be secured; trapped raccoons have been known to move and flip traps.

If a trap must be placed in close proximity to sensitive areas, protect them by wrapping the cage with ¼-inch mesh or plywood boards or other durable objects to prevent damage from a trapped raccoon. Placing a small bottle, cap, or other item inside the cage will sometimes keep the coon occupied, preventing damage to the area or self-inflicted harm to the raccoon.
BODY GRIPPING TRAPS

The use of body gripping traps that exceed a 5” jaw spread (110 Conibear®) on dry land are illegal in Alabama.

FOOTHOLD TRAPS

Raccoons also can be captured in foothold traps. Use a No. 1 or No. 1½ coilspring or stoploss trap fastened to a drag such as a tree limb 6 to 8 feet long. For water sets, use a drowning wire that leads to deep water. As with cage traps, always be aware of the surroundings, particularly when the traps are not set in a lethal manner as trapped raccoons will destroy whatever they can reach.

POCKET SETS

The “pocket set” is very effective for raccoons, and is made along the water’s edge where at least a slight bank is present (Figure 11). Dig a hole 3 to 6 inches in diameter horizontally back into the bank at least 10 to 12 inches. The bottom 2 inches of the hole should be below the water level. Place bait or a lure (fish, frog, anise oil, honey) in the back of the hole, above the water level. Set the trap (No. 1 or 1½ coilspring, doublejaw or stoploss is recommended) below the water level in front of or just inside the opening. The trap should be tied to a movable drag or attached with a one-way slide to a drowning wire leading to deep water.

DIRT-HOLE SETS

Dirt-hole sets (Figure 12) are effective for raccoons. Place bait or a lure in a small hole and conceal the trap under a light covering of soil in front of the hole. A No. 1 or 1½ coilspring trap is recommended for this set. It is important to use a small piece of clean cloth, light plastic, or a wad of dry grass to prevent soil from getting under the round pan of the trap and keeping it from going down. If this precaution is not taken, the trap may not go off.

Figure 11. Diagram of a pocket set for raccoon. Image by PCWD

Figure 12. Diagrams of a dirt hole set for raccoon. Image by PCWD.
SPECIES SPECIFIC TRAPS

Raccoons have incredible dexterity in their front paws and a variety of traps have been designed to exploit that ability. These traps significantly reduce the likelihood of non-target catches because they rely on the trigger to be pulled rather than pushed as with the foothold. Very few animals can pull, making these traps are relatively species-specific. Species specific traps include the Egg Trap®, Coon Cuffs®, Duffer’s Raccoon Trap®, and Lil’ Grizz® (Figure 13).

Figure 13. The Lil’ Grizz® is a popular species-specific raccoon trap. Photo by Stephen M. Vantassel.

These traps can be used just like footholds. Be sure to anchor them securely and consider what the trapped raccoon might damage.

HANDLING

RELOCATION

It is illegal to relocate raccoons in the state of Alabama to a location across county lines or a river drainage because of potential health risk (i.e. rabies).

TRANSLOCATION

Translocation is not recommended for raccoons. Many states forbid the translocation of raccoons and other rabies vectors. It is illegal to translocate raccoons in the state of Alabama to a location across county lines or a river drainage because of potential health risk (i.e. rabies).

EUTHANASIA

Carbon-dioxide (check state regulations) is the preferred method of euthanasia. Adult raccoons die relatively quickly, but juvenile raccoons can last 30 minutes or more particularly when placed in a chamber with less than 100% carbon-dioxide.

DISPOSAL

Refer to Volume 1 of the National Wildlife Control Program and your state regulations regarding carcass disposal.

OTHER CONTROL METHODS

DIRECT CAPTURE

Sometimes raccoons are ill and/or are in locations where immediate removal is required. Raccoons present special challenges due to their mobility and ability to climb.

Equipment needed includes, gloves, snare-pole, cat-grasper, hand net, raccoon-sized cage/box trap.

Due to the variety of potential situations where raccoon removal will occur, we can only provide some basic strategies:

1. Restrict the raccoon’s movement by closing doors, cabinets, rooms, etc.
2. In general, slower moving raccoons can be captured with the snare-pole. Faster raccoons will require the hand net.
3. Captured raccoons may defecate/urinate.
4. Carefully monitor raccoon behavior. Each animal is different. Always consider your personal safety. While rare, cornered raccoons may charge.
5. Sometimes cornered raccoons duck their head, making it difficult to place the noose of the snare-pole around their heads. In these circumstances, poke the raccoon’s chest with the snare-pole. The raccoon will respond by lifting his head thereby providing an opportunity to place the noose.

6. Clean up the area or provide instructions on clean up.

7. Inquire about any potential exposures before disposing of the raccoon.

**CHIMNEY REMOVAL**

Raccoons have learned that unused chimney flues make excellent locations to raise young. Customers usually complain of hearing chirping or chattering emanating from the fireplace, a classic sign of juvenile raccoons. Removal of raccoons from the chimney is a two-step process. First, secure the female; second, remove the young.

The Chim-Trap (Figure 13) sets on the flue. Bungee cords are stretched from the top of the trap and secured to a strap on the chimney. Some WCOs use cables for the top half of the distance to prevent raccoons from chewing up the bungee cords.

Viewing the video by Rich Daniotti entitled *Removing Raccoons from Chimneys* is strongly recommended.

Figure 13. The Chim-Trap. Photo by Wildlife Control Supplies.

The No-See Um Chimney Trap is also left overnight but it is placed inside the flue and therefore is out of public view (Figure 14).

Another method of chimney removal involves removing the female immediately and thus allows the WCO to resolve the problem in one visit. This method requires the securing of a cage to the top of the flue and then inserting a modified chimney brush down the flue to the smoke chamber. The frightened female then enters the flue followed by the brush which encourages her to enter the cage. When the female is secure, enter the home to remove the young through the damper.

Equipment needed includes, drop cloth, lighting, respirator, gloves, mirror, raccoon cage for young, hammer, tin snips, screw driver, pliers or vice-grips, eye protection, assorted codder pins, propane torch, and lighter.
Lay out the drop cloth in front of the fireplace and remove items that may become damaged or soiled. Light the propane torch and put on your respirator and goggles. The propane torch helps create an updraft in the chimney to reduce dust and debris falling into the living area. Open the damper a quarter inch. Some dust likely will fall down. Let the propane torch continue to send warm air up the chimney. Avoid burning the young. Open the damper more and use your mirror to confirm the presence of the young. If you can reach them, simply grab them one by one and place them in the cage. Have the door closed as they will climb. Handle them carefully but do not be concerned with their screeching.

Thick leather gloves are enough to protect you, as the young are not developed enough to bite with any real force. If you cannot get all the young, you may need to remove the damper. Straighten the cotterpin and try to pull out. If it is too rusted or difficult cut the head off and remove. Be careful, as soot may fall down into the fireplace area when the damper is removed. Remove the remaining young and replace the damper with a new cotter pin. Confirm that the damper is working properly.

**ACKNOWLEDGMENTS**

Although information for this section came from a variety of sources, we are particularly indebted to Eric Fritzell of the University of Missouri, who provided a great deal of recently published and unpublished information on raccoons in the central US Information on damage identification was adapted from Dolbeer et al. 1994.

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From the book, PREVENTION AND CONTROL OF WILDLIFE DAMAGE — 1994

Published by the University of Nebraska–Lincoln Extension and the US Department of Agriculture Animal and Plant Health Inspection Service-Wildlife Services

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**RESOURCES**

**KEY WORDS**

Raccoon, wildlife damage management, nuisance wildlife control
ON-LINE RESOURCES

http://pcwd.info
http://icwdm.org

QUESTIONS FOR REFLECTION

1. Why is translocation of raccoons not advised?
2. What should you keep in mind when using foothold or species specific traps?
3. How would you protect yourself from raccoon-borne diseases?
4. Describe a situation when it would be ill-advised to use conibear-style traps.

OBJECTIVE QUESTIONS

1. How many young are typically in a raccoon litter?
   a. 2-3
   b. 3-4
   c. 2-5
   d. 1-5
   e. 3-5
2. Circle all that apply. Diseases associated with raccoons include:
   a. Rabies
   b. Lyme disease
   c. Baylisascaris procyonis
   d. Rocky Mountain spotted fever
   e. Giardia
3. Raccoons need a hole that is at least____ inches wide to enter a structure.
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5
4. What is critical area to inspect for raccoons?
   a. downspouts
   b. driveway
   c. windows
5. A farmer owns a large farm in a rural area. His corn is being ravaged by raccoons. What control tools would be most efficient for this situation, assuming all options are legal?
   a. species-specific traps
   b. cage traps
   c. No-See Um Trap
   d. electric fence

DISCLAIMER

Readers are advised to implement the safety implementation of wildlife damage management involves risks. Readers are advised to implement the safety information contained in Volume 1 of the National Wildlife Control Training Program.

Some control methods mentioned in this document may not be legal in your location. Wildlife control providers must consult relevant authorities before instituting any wildlife control action. Always use repellents and toxicants in accordance with the EPA-approved label and your local regulations.

Mention of any products, trademarks or brand names does not constitute endorsement, nor does omission constitute criticism.