



# Managing Human-Wildlife Interactions: Raccoons (*Procyon lotor*)

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In 1612, Captain John Smith was among the first to mention the raccoon in Virginia, referring to it by its native Powhatan name, “aroughcun,” which loosely translates to “one who scratches with the hands.” The raccoon’s scientific name, *Procyon lotor*, translates to “washing pre-dog,” a reference to the lineage raccoons share with dogs and the belief that raccoons wash their food. Believed to be quite numerous in Captain Smith’s time, raccoons are still abundant throughout Virginia and are found in every county in the state. Almost all Virginians are familiar with this species, whether from seeing one in the wild, observing one killed along our highways, or having been on the receiving end of their sometimes bothersome activities.

Historically, raccoons were important for their pelts and as a species prized by recreational trappers and hunters. However, the increasing frequency of interactions between raccoons and humans (or their pets), especially in urbanizing landscapes, has led to a rise in conflicts. Raccoons can be a nuisance to livestock producers due to the risk posed by rabid individuals and because raccoons will kill poultry and raid coops in their search for food. They damage gardens and crops, especially where corn is grown. Raccoons become a nuisance to homeowners when they use attics or uncapped chimneys as den sites. They also rummage through unsecured trash bins in search of food, often leaving a mess for homeowners. Damage caused by raccoons can cost thousands of dollars in home repairs and cleanup, or in damage inflicted on agricultural crops or livestock. This publication is designed to improve readers’ knowledge and understanding of this fascinating animal and provide guidance on how to coexist with raccoons by discussing methods to avoid negative interactions.

## Biology and Behavior

### Physical Characteristics

Raccoons are recognized by their distinctive markings, including their dark facial mask, which enhances their reputation of being “bandits,” and their long, densely furred, and ringed tail (fig. 1). The facial mask — composed of dark fur that fully surrounds the eyes and a contrasting white border — serves several important functions. It projects an aggressive visual display that helps the raccoon defend territory and ward off predators. It is also believed to improve night vision by absorbing light or reducing lunar glare while the animal forages. In addition to their acute sense of smell and ability to distinguish vocalizations, raccoons may also be able to recognize or identify other individuals by the subtle but unique differences among masks and ringed tails.



**Figure 1:** Typical appearance and coloration of the raccoon (*Procyon lotor*). Photo is licensed under [CC BY 3.0](https://creativecommons.org/licenses/by/3.0/) Cary Bass-Deschênes.

The raccoon's pelt is composed of fine underfur and long, stiff, outer guard hairs. The soft underfur provides insulation in cold weather, whereas the guard hairs form a moisture barrier. The guard hairs give the animal its characteristic coloration, generally a blackish gray to slate gray with brown tones on top and a pale gray to dirty tan color on the underside.

The raccoon is considered a medium-sized ("meso-") mammal. Adults weigh between 10 and 20 pounds, and the occasional large individual can weigh as much as 30 pounds. Although all raccoons generally look similar, males are typically 10%-15% heavier and slightly longer (total length 25-41 inches) than females of the same age (total length 24-36 inches). They have a stout body, broad head, and pointed nose. The tail of male raccoons measures between 8 and 16 inches, whereas that of females is about 2 inches shorter. Raccoons use their bushy, gray-brown, and black-ringed tail for balance while climbing trees and to support the body while sitting. The tail also stores fat for the winter. Fat deposits build up just beneath the skin of the tail, and raccoons rely on this reserve, as well as fat stored in other parts of the body, during times of food shortage and prolonged cold weather.

Raccoons are opportunistic, using their physical features to their best advantage. The five long toes on each paw are covered with short, smooth hairs on top but are hairless below, which improves the animal's ability to grasp and manipulate objects (fig. 2). A curved, nonretractable claw on each toe helps raccoons climb trees, forage for food in the dirt or inside tree cavities, capture small prey, and pry apart crustacean shells. The front paws contain a large number of sensory receptors and special hairs ("vibrissae") that enhance a raccoon's sense of touch and allow it to distinguish objects it cannot see. These sensitive forepaws allow the animal to search for food under water and discriminate edible from non-edible objects.



**Figure 2:** A raccoon is displaying its highly nimble front paws. "Rocky (The Thief) Raccoon" by [jerrygabby1](#) is licensed under [CC BY-NC 2.0](#).

## Distribution and Home Range

Raccoons have a wide distribution across North America, ranging from Mexico to southern Canada and from the East to the West Coast of the U.S. In Virginia, raccoons are found statewide, but generally are more abundant in Eastern Virginia than in counties west of the Blue Ridge Mountains.

Individual raccoons are capable of traveling long distances in their search for food, which partially explains the large variation in the size of their home range (100-250 acres). The size of a raccoon's home range also depends on the season, age and sex of the individual, habitat quality, and population density.

## Habitat

Raccoons typically are found in habitats that are close to water. In Virginia, raccoons are most common in the Coastal Plain region, where they inhabit fresh and saltwater marshes, bottomland forests, and wooded swamps. In more inland regions, they inhabit forests and agricultural lands that afford access to adjacent ponds and rivers. Raccoons are more abundant in upland hardwood forests than in pine forests. Although they prefer hollow trees as den sites, they also will use ground burrows, rock crevices, or brush piles. In suburban and urban settings, raccoons occasionally use human-created buildings (e.g., barns, sheds, attics) and other infrastructure (e.g., culverts, bridges) as den sites.

## Diet

Raccoons are omnivorous and eat a wide variety of both plant and animal matter. Being opportunistic, they will consume the foods that are most readily available. In spring and early summer, raccoons consume mostly animal-based foods, including fish, frogs, turtles, eggs, crayfish, shellfish, young birds, small mammals, insects, and carrion; however, blueberries, blackberries, raspberries, and various tree fruits are staples in the diet when they become available seasonally. In fall and winter, acorns, seeds, and nuts become vital food resources.

Raccoons also are notorious for rummaging through garbage, raiding gardens, and stealing pet food left outdoors. In agricultural areas, they may consume corn and other grain crops and invade chicken coops.

Like most other omnivores, raccoons have teeth that are well-adapted for both crushing and shearing. The canine teeth are extremely sharp and used to bring down prey

and for defense. As is true for other members of the raccoon family (*Procyonidae*), the raccoon has 40 teeth. Raccoons are intelligent creatures capable of learning how to exploit new sources of food. Adults demonstrate this knowledge to their offspring and siblings, who then master the newly acquired behaviors.

Where water is accessible, raccoons often dampen food items before eating, a behavior that mistakenly has led people to believe that raccoons always wash their food (fig. 3). Interestingly, the German word for raccoon, “waschbär,” which translates roughly to “wash bear,” further illustrates this perception. Although this behavior of dousing food in water (called “dabbling”) may enhance their sense of touch, washing is not mandatory. Where water is not available, raccoons typically just eat the item as found. Raccoons also possess an acute sense of smell and often are seen pressing objects to their noses to evaluate the scent. With these adaptations, raccoons are well-suited to eating a variety of food items and can survive in many different habitats.



**Figure 3:** Raccoon exhibiting “dabbling” behavior. Photo by StockSnap via Pixabay.

## Social Behavior

In Virginia, raccoons remain active year-round but may shelter in a den for several consecutive days during extreme cold. Raccoons use scent produced by the anal gland as the primary means to distinguish themselves from other individuals and to define territory boundaries. Communication among raccoons includes physical posturing and vocalizations used to establish and enforce territories, attract mates, and locate or warn their young of danger. In aggressive confrontations, raccoons will scream, hiss, snarl, and growl, and their ears will be laid flat against the head, which highlights their prominent white tips.

Raccoons are described as nocturnal (i.e., active mostly at night), but individuals occasionally will be active during daylight hours. Generally solitary animals, raccoons sometimes form small family groups that den or forage together. Males exhibit territorial behavior toward other males, but females usually are not territorial. During the breeding season and in winter, females use dens to give birth and raise young. Dens can be located in hollow trees, fallen logs, stumps, abandoned buildings, barns, and home attics. Raccoons that live in marsh or swamp habitats where naturally occurring cavities are not plentiful simply den in vegetation on the ground, sprawl on tree limbs, or occupy abandoned duck nest boxes.

## Reproduction, Mortality, and Disease

Raccoons are polygamous; one male often mates with two or three females during a breeding season, but a female at the peak of her estrous cycle may also mate with more than one male. Most mating occurs during February and March, and kits are born about two months later in April and May. Litter size ranges from one to eight kits (average of three to four) that are completely dependent on the female for eight to 10 weeks. Kits are weaned by 16 weeks of age but remain under the watchful eye of their mother for up to nine months.

On average, raccoons in the wild live two to five years, but some individuals survive as long as 10 to 12 years; raccoons in captivity regularly live 14 to 18 years. The primary mortality factors for adult raccoons in Virginia are human-related, including roadkills, trapping, and hunting. Predation by black bears, bobcats, foxes, coyotes, and large owls can be an important mortality factor for juvenile raccoons.

Raccoons are susceptible to canine distemper, an airborne virus capable of causing significant mortality in raccoons. Once infected, the raccoon’s brain swells, causing neurological symptoms like aggression, disorientation, and convulsions. Other signs of canine distemper include nasal discharge, conjunctivitis, and diarrhea. Juvenile raccoons are more susceptible to the distemper virus than are adults, and most cases are observed during spring and early summer, soon after new litters are produced. Although this disease is not transmissible to humans, it can affect domestic dogs and wild canids, ferrets, weasels, and skunks. Rabies, parvovirus, and *Baylisacaris* (a roundworm) are other important disease or parasite concerns associated with raccoons, several of which have significant human health implications. Raccoons remain the primary vector through which exposure to rabies for humans exists —



greater than with any other wildlife species.

## **Economic Importance, Conflict Incidence, and Threat of Disease**

In North America, Native Americans regularly hunted raccoons as food and for their fur, which they used to make clothing. Fur from various mammals, including raccoons, was used by certain indigenous people to create hats. The size of the pelt and the thickness of the fur made raccoon pelts an attractive choice for hat-making. The raccoon's tail, often left attached to a pelt, became a prominent component of these caps. In addition to being part of one's normal hunting attire and a means to stay warm in the winter, possession of a "coonskin cap" sometimes conveyed special status within a tribe.

Early colonial settlers used raccoons as a source of fur and meat during the 1600s, a practice that continued through the 1800s. Raccoon fat was used as a lubricant, leather softener, and replacement for beef lard. Although raccoon pelts were not as prized as those from beaver, they still became objects for trade and bartering in poorer rural areas. As was true for Native Americans, settlers also made coonskin caps, which became an iconic image of frontiersmen like Davy Crockett and Daniel Boone.

Early settlers also brought the European tradition of hound hunting to the New World in the 1600s, where hunting success was enhanced by relying on the dogs' keen senses of sight and smell. Hound hunting continues to be popular in Virginia and represents an important economic driver of hunting license sales statewide. Current estimates suggest that approximately 40% of licensed hunters in Virginia hunt with dogs in pursuit of game; of those, 11% hunt raccoons with dogs (4% of all hunters).

Since raccoons first appeared in written records in 1612, they have remained abundant in Virginia, in part because they coexist well with humans. By the 1940s, raccoon populations in the Tidewater region of Virginia had grown substantially larger than those seen in western parts of the state. In response, the Commission of Game and Inland Fisheries (now known as the Virginia Department of Wildlife Resources) initiated a program to trap raccoons in the eastern part of the state or purchase raccoons from neighboring states and release them in Virginia's western counties as a way to boost hunting and trapping opportunities there.

According to fur trading records of the Hudson Bay Company from the 1800s and early 1900s, hunters and trappers in the U.S. sold an average of about 3,500 raccoon pelts to the Hudson Bay Company annually. By the mid-1940s, annual national pelt sales to the Hudson Bay Company had increased to 1 million, but ultimately rose to nearly 2 million by the early 1960s. In Virginia, raccoon harvest reached a maximum (118,950 pelts) during the 1980-81 season. The highest average pelt price (\$22.32) was reached several years earlier during the 1979-80 season (adjusted for inflation, this average was \$87.57).

Although the fur market today is not as lucrative as it was 50 years ago, regulated hunting and trapping of raccoons continue to be popular and contribute to the state's economy. According to data from Department of Wildlife Resources' 2015-16 Virginia Hunter Survey (the most recent version available), an estimated 67,695 raccoons were harvested by hunters during the 2013-14 season, with the highest take occurring in the western mountain region where raccoon hunting is popular. Fur trappers took an estimated 11,159 raccoons during the 2019-20 season, more than twice the number of any other furbearer species. Because the average pelt price for raccoon fur was very low at that time (\$2.69) and many pelts actually went unsold, the reported value of raccoon pelts sold in Virginia during the 2019-20 season was only \$6,701.

Raccoons have readily adapted to conditions in urban environments where they have taken advantage of abundant food sources and available denning opportunities. As a result, their populations have grown noticeably in these highly modified habitats. As urbanization has spread across Virginia's landscape, the risk of human-raccoon interaction also has grown, increasing the potential for disease transmission and property damage by raccoons. Given their close association with human populations, the potential health threats posed by raccoons is of concern.

As noted earlier, among the disease threats raccoons pose to humans is the risk of rabies. Rabies is a "neurotropic virus" (meaning it resides within the host organism's nervous tissue) that is transmitted through the saliva of an infected host into another organism via an open wound or a mucous membrane. The incidence of rabies in Virginia increased dramatically in the 1970s when several hunting clubs illegally relocated raccoons from Florida to parts of Western Virginia to restock depleted local populations. Some of these relocated raccoons harbored the rabies virus, and the raccoon strain of rabies soon spread throughout the state. Today,

raccoons remain the most important terrestrial reservoir of rabies and the primary vector involved in spreading rabies to other wildlife, nonvaccinated domestic animals, and potentially humans.

In the late 1990s, the Wildlife Services Division of the USDA's Animal and Plant Health Inspection Service initiated a program to attempt to contain the western spread of the raccoon strain of rabies in wildlife. Through its National Rabies Management Program, agency personnel have been distributing oral rabies vaccination baits that deliver a dose of the Raboral-V-RG vaccine to raccoons. After multiple years of baiting, they have established large segments of a miles-wide barrier (primarily along and west of the Appalachian Mountains in the southwest corner of Virginia) that eventually will extend from Canada to the Gulf Coast and will attempt to prevent raccoon rabies from spreading westward (see [map](#)). Although an expensive endeavor, the benefits of oral rabies baiting are believed to exceed its costs because the program has reduced human, livestock, and pet exposure and has limited costs associated with combating rabies outbreaks. Large-scale attempts to manage rabies via trapping, hunting, or distribution of poison baits have not proven effective in free-roaming populations due to the high costs and labor needs as well as the potential risk posed to nontarget wildlife species. However, trapping and shooting can be effective for removing individual infected animals that present an immediate health risk to residents.

Raccoon roundworm (*Baylisascaris procyonis*), a parasite that can pose a potential threat to human health, resides in the intestines of infected raccoons where it produces millions of eggs that are shed in the raccoons' feces. Humans and domestic animals become infected following direct contact with feces infested with eggs; these eggs have a very sticky and persistent coating that is difficult to remove or inactivate. Transmission typically occurs through hand-to-mouth contamination while eating after contact with these eggs. If left undiagnosed and untreated, roundworms can cause serious neurologic disorders and — in severe cases — death.

## Conflict Management Strategies and Techniques

Because no single measure taken by property owners is likely to prevent destructive behavior or assure complete protection from raccoons, several strategies may be necessary to bring effective relief. Even then, few will be effective if the raccoon's biology and behaviors are

not considered. Anyone who lives or works in areas where raccoons reside must understand that raccoons are intelligent and highly adaptive creatures that are capable of evading many of the complicated defenses people devise in their efforts to protect garbage cans, crops, gardens, and homes.

## Tolerance and Good Husbandry Practices

Many homeowners are fascinated to watch the backyard exploits of a raccoon, so they tolerate its presence as much as possible. However, most people are not aware that raccoons are present in their neighborhoods because these animals are primarily active at night and are initially cautious about approaching humans. When homeowners find signs of recent raccoon activity or presence, such as muddy paw prints (fig. 4) and droppings, they should be alert to the potential for conflict. Unless evidence of damage is present, leaving the raccoons alone and choosing to take no action, other than performing regular monitoring and eliminating all access to food sources, may be an appropriate option at this initial stage.



**Figure 4:** Footprints left behind by a raccoon after having walked in soft mud. Photo is licensed under [CC BY-NC 2.0](#) Michael Kappel.

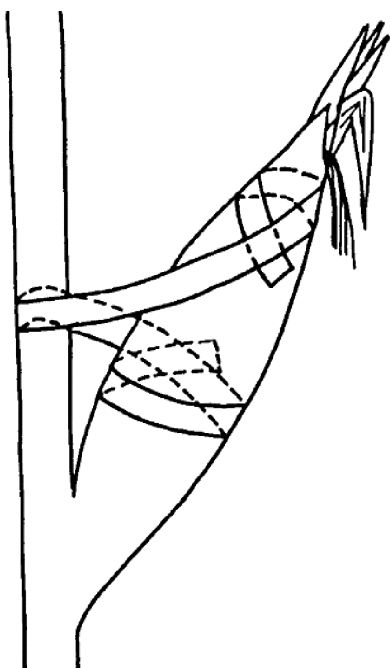
When thinking about how to minimize or avoid unwanted problems with raccoons, you first should consider that your own behaviors could be contributing to the situation. In many cases, it is much simpler to modify your own actions rather than attempting to implement more complicated and costly solutions. The simplest way to deter raccoons is to eliminate readily available sources of food and water and prevent access to shelter, all of which serve as attractants. Garbage cans must be protected, either by storing them indoors at night or by securing the lids with stout bungee cords or locking latches. Pet owners must ensure

that unconsumed pet food is not accessible outdoors, especially at night. Bird feeders placed within the reach of raccoons often become important and reliable sources of supplemental food for them. Removing these resources or preventing access to them will usually lessen a raccoon's interest in returning.

To reduce the spread of rabies or canine distemper from raccoons to domestic animals, owners should maintain their animals' regular vaccinations. The best ways to avoid raccoon roundworm infection are to minimize opportunities for raccoon-pet interaction, practice sound sanitation (i.e., proper handling of raccoon feces, thorough and frequent handwashing), and ensure that pets are wormed beginning at an early age.

## Nonlethal Methods

Field crops and home gardens, especially those containing sweet corn and fruit, are attractive food resources for raccoons. For homeowners who have small garden plots of sweet corn, individual ears of corn can be protected by securing them to the stalk using filament packing tape. To prevent raccoons from stripping down the husk, first wrap the top of the ear and then coil another loop of tape around both the ear and the stalk to prevent raccoons from separating the ear from the stalk (fig. 5). This process requires time and labor and would be justifiable only for very small backyard gardens. However, research has shown that taping ears of corn reduced raccoon (and some bird) damage by 70%.



**Figure 5:** Representation of corn taping to reduce raccoon damage to sweet corn (Boggess 1994, C-104).

Another option to reduce crop damage from raccoons is to chase raccoons periodically using dogs, which may scare them away from the area of concern, at least temporarily. Virginia maintains a continuous open-chase season on private lands, provided no capture or lethal take occurs (4VAC15-210-10). Farmers of sweet corn crops can enlist the aid of local hunt clubs to run dogs through and adjacent to their fields, hoping that this periodic harassment will make raccoons more cautious about entering crop fields.

## Fencing

An option for protecting field crops or garden plots from raccoon damage is to install a wire mesh fence with openings less than 2 inches. To prevent raccoons from simply climbing over a newly installed fence, the top 12 inches of the fence should bend outward on supports that maintain a 45-degree angle or, where local ordinance allows, add one or two strands of properly insulated electrified wire at the top to deter entry from the top. Alternatively, two to four strands of electrified wire attached to insulated stakes can be installed around the perimeter of the garden or crop, where each wire is spaced no more than 6 inches apart and the bottom wire is 4-6 inches above the ground (fig. 6). If a fence already exists, a single strand of electrified wire can be mounted on top to provide additional protection. Installing mesh fencing across uneven topography can be difficult because gaps will allow raccoons to slip under. Before installing any type of fence, check to see whether local zoning restrictions/ordinances or your homeowners association covenant precludes the use of fencing.



**Figure 6:** Image depicting simple electric fence option for deterring raccoons (Boggess 1994, C-103).



Raccoons occasionally attempt to enter backyard and commercial poultry and game bird rearing operations where they target both the birds and their eggs. Poultry killed by raccoons is often decapitated, and the body is only partially eaten. Owners can minimize such problems by constructing enclosed pens using heavy-gauge wire mesh fencing. Raccoons are skilled climbers, so protecting the top of the pen is essential to prevent access from above. To prevent raccoons from digging under the sides of the enclosure, fencing should extend a minimum of 6 inches below the ground surface. For facilities where the potential of loss to predators is high, birds should be confined to a secure permanent roosting structure, especially at night. In some cases, electric fencing also may be useful.

## Exclusion

In addition to reducing or eliminating food resources that attract raccoons, it is also important to prevent their access to areas viewed as potential den sites. Chimneys and attics are spaces commonly used by raccoons as daytime resting spots and places to birth young. Installing an approved chimney cap made from sheet metal and heavy metal screening will secure the flue from raccoons and other wildlife. However, before installing a chimney cap, homeowners must verify that the cap they have selected is appropriate to the type of flue they have and that it meets all pertinent local building and fire codes. Improper sizing and restricted airflow could impede the proper venting of gases, causing toxic fumes to accumulate in the living quarters. Also, prior to installation, homeowners must verify that no animals are in the chimney; once the cap is in place, these animals would be trapped inside.

To reduce access to attics and crawl spaces, locate and repair or seal up any openings that currently provide entry. Prominent locations for entry include gable vents, soffit vents, holes along the foundation, and any other opening approximately 3-4 inches in diameter or larger. As is true with chimney access, owners must ensure that all animals are outside or have been removed prior to making these permanent repairs to avoid trapping animals inside. If needed, there are many skilled wildlife control operators who can assist homeowners with chimney cap installation and exclusion work for a fee (see [dwr.virginia.gov/wildlife/nuisance/trappers/](http://dwr.virginia.gov/wildlife/nuisance/trappers/)).

## Repellents

Repellents use strong odors or foul tastes to discourage animal presence and may be useful when applied in conjunction with other exclusion techniques. However, a repellent, when used alone, is unlikely to be successful

in driving a problem raccoon away or preventing one from returning. Overall, the success of chemical repellents in deterring raccoons is low. In Virginia, the only repellents currently registered and approved by the U.S. Environmental Protection Agency for use on raccoons contain capsaicin (derived from hot chili peppers; considered a general-use wildlife deterrent for many vertebrates) or capsaicin mixed with other plant derivatives (e.g., mustard, black pepper). To potentially deter a raccoon's interest in trash cans, plastic bags and garbage bin inserts impregnated with a cocktail of essential oils (e.g., camphor, mint, or eucalyptus oils) and methyl salicylate have been developed and now are registered as repellents, giving homeowners an additional option. Mothballs or ammonia-soaked rags should not be used as deterrents; these are not registered chemical products for use on raccoons and their use would be illegal.

## Audio-Visual Frightening Devices

When implemented correctly, frightening devices can temporarily prevent a raccoon from entering or gaining access to an area where its presence is not wanted. Devices that produce light, noise, or a combination of both should trigger the animal's innate flight response from what it perceives as a threat. Bright pulsating lights, loud music, and the loud barking of guard dogs are examples that may discourage raccoons from using certain areas. The more unpredictable the threat stimulus, the greater the initial effectiveness will be relative to devices that produce a continuous, repetitive, or unchanging stimulus. If the animal recognizes that no true threat exists or that there is no penalty or consequence associated with ignoring a threatening sound or visual image, the animal eventually will disregard that stimulus — a behavioral response process referred to as “habituation.”

All visual and auditory repellents are subject to losing effectiveness over time unless some consequence comes from ignoring the threat (e.g., periodically applying a legally authorized lethal option). Rotating several different stimuli-producing devices, rather than relying on a single device, can slow the onset of habituation. Frightening strategies also will be more effective if implemented at the first sign of damage and before the animal can develop a well-established routine. Frequently moving a device to a new location or periodically turning it off and on in an unpredictable fashion can also help extend its period of effectiveness.

## Removal From Buildings

In situations where a homeowner finds a raccoon

or family of raccoons living in the home (e.g., attic, chimney, crawl space), it may be advantageous to retain the services of a professional wildlife control operator. Homeowners can find a list of nuisance wildlife trappers, listed by county, on the Virginia Department of Wildlife Resources website (<https://dwr.virginia.gov/wildlife/nuisance/trappers/>). These individuals are familiar with the species and removal techniques that are safe, effective, and legal; they also possess the necessary equipment and authorization permits to handle wildlife. They will charge a fee for their professional services.

A common difficulty encountered when homeowners attempt to evict a raccoon from the home is the uncertainty of knowing exactly how many animals are involved. During the spring and early summer, what initially appears to be a single animal could be a female raccoon with a litter of young hidden somewhere in the home. Because young raccoons are born helpless and blind, their well-being depends entirely on the mother until weaned about four months after birth. If disturbed at a critical time during the rearing process, the mother may abandon her young, ultimately resulting in the death of the kits. To avoid the potential of abandonment, a trained professional will locate the den site and attempt to determine how many individuals are present. Ideally, all members of the family unit should be captured and removed simultaneously. Ill-planned harassment techniques and improper trapping attempts often result in abandonment of the young, which eventually leads to noxious odor problems as the undiscovered carcasses slowly decompose.

Following removal of all individuals, the inhabited space should be cleaned thoroughly to remove fecal matter, parasites, and any scent left behind that may attract the interest of other raccoons. Special protection (e.g., respirator, disposable gloves, and coveralls) is needed to avoid inhaling airborne particles or potentially having direct contact with eggs of the roundworm embedded in fecal matter. Fecal and bedding material should be wetted lightly with a disinfecting solution prior to disturbance to prevent particles from becoming airborne. Collected waste matter should be burned, buried deep in the soil, or double-bagged for disposal in a landfill. If the inhabited space was a chimney flue or fireplace and the chimney is intact and functional, a fire could be ignited after initial cleaning to kill any remaining parasite eggs.

## Lethal Methods

Before attempting to capture or kill any wild animal, you must know what the law allows. In Virginia, it

is illegal to possess, transport, liberate, or kill a wild animal unless specifically authorized by law (§29.1-521-10). Additional regulations place further restrictions on the capture and disposition of live animals (addressed in the next section). Therefore, individuals seeking relief from conflicts with raccoons through the use of lethal methods, including trapping, may find it best to leave these tasks to professionals who have the experience, proper equipment, and knowledge of existing regulations to perform these activities.

## Trapping

In Virginia, raccoons are classified as a furbearing species for which an established open season for regulated trapping exists (Nov. 15 through the end of February each year). There also is a continuous open trapping season for raccoons within the incorporated limits of any city or town, and in the counties of Arlington, Chesterfield, Fairfax, Henrico, James City, Loudoun, Prince William, Spotsylvania, Stafford, Roanoke, and York (4VAC15-210-51). Additional details on trapping regulations related to raccoons can be obtained from the Virginia Department of Wildlife Resources' Regulations publication, [Hunting & Trapping in Virginia](#).

In situations where raccoons are causing damage to crops or property or are posing a threat to human health, any landowner is allowed to trap the offending animal(s) during the closed season (§29.1-517). However, this provision for killing raccoons out of season applies only to the landowner, and that individual cannot get someone else to assist except for a permitted wildlife control operator.

Although property owners are granted certain authority to trap wild animals on lands they own, especially in situations involving damage caused by wildlife, how such trapping is conducted and, more importantly, what can be done with any animals captured are restricted by numerous laws and regulations. Of particular concern to those contemplating trapping are regulations regarding what you can do with wildlife held in live capture traps. Currently, a landowner has three disposition options: (1) release the animal at the point of capture (i.e., somewhere on property the individual owns); (2) if the animal exhibits evidence of injury or need for care, the landowner can transport the animal to a licensed wildlife rehabilitation facility, but only upon prior notification of the facility's willingness to accept the animal; or (3) dispatch (kill) the animal humanely. Wild animals cannot be held in possession, transported off the property, or released on land not owned by the individual conducting the trapping. Justification to



support restrictions on moving wildlife includes the following:

- Low survival among translocated animals — For many species, survival following relocation is often less than 25% due to the animal's unfamiliarity with the habitat into which it was placed; competition with other animals of the same species already in the area; late or delayed onset of the effects of stress from the trauma of being trapped, handled, and translocated; and mortality that often occurs as the animal attempts to return to its original home range (e.g., through predation, roadkill, etc.). For these reasons, immediate dispatch is often a more humane disposition option than relocation.
- Disease transmission — The probability of spreading a disease carried by the trapped individual to a new or uninfected area can be high, even if the animal is not exhibiting obvious outward symptoms at the time of release.
- Likelihood of infection or injury — Due to lack of experience and training in handling wildlife, those attempting to capture and relocate a wild animal place themselves at risk of being bitten, scratched, or injured and potentially exposed to a transmissible disease.
- Potential of creating a problem elsewhere — Relocated animals rarely stay at the exact point of release. Also, habituated animals don't simply leave their bad behaviors behind when captured, so they often cause conflicts in the vicinity of the release location.

For those comfortable with trying to trap raccoons themselves, a variety of live-capture devices is available. It is important to choose the correct size and type of trap best suited to local site conditions. For example, using a steel jaw foothold trap in a heavily populated area typically would not be appropriate due to the presence of many free-roaming pets and small children. Cage traps appropriately sized to contain a raccoon are available (32-42 inches long with a 10-12-inch square entrance), including one specifically designed to attach to a chimney flue for capturing raccoons that have taken up residence in the chimney. Some types of cage traps may need to be staked down to prevent the raccoon from flipping the trap and escaping. A variety of baits can be used; some popular baits include sardines and canned pet food, but these may draw in skunks, opossums, and free-roaming cats, so caution is advised.

Another trap specifically designed to target raccoons is

referred to as an encapsulated foot trap, a device that relies on a raccoon's inherent curiosity and dexterity to trigger the device, which then grasps the raccoon's foot and holds it within the trap's tethered metal tube or egg-shaped nylon casing. Often called a "dog-proof" trap, several popular models include the Egg, Lil' Griz, Duffers, and Coon Cuff traps. These traps are very selective for raccoons because most other animals are unable to access the trigger deep inside the egg or tube, so the potential for capturing or injuring pets or other nontarget animals is much reduced. Soft-catch coil spring foothold traps (#1½) also are used commonly; these devices, when properly located and set, have low-injury and high-capture success rates.

Lethal traps are designed to kill a raccoon swiftly and as humanely as possible. An example of this type of trap is the body-gripping trap, such as the Conibear. When set properly and triggered, spring steel bars snap shut tightly around the animal's chest, breaking the rib cage and severing the spinal column. Given the inherent risk, body-gripping traps must be used only where the potential of attracting or ensnaring a pet or nontarget wildlife is low.

## Shooting

The open season for hunting raccoons in Virginia spans from Oct. 15 through March 10 ([dwr.virginia.gov/hunting/regulations/furbearerhunting/#raccoon](http://dwr.virginia.gov/hunting/regulations/furbearerhunting/#raccoon)). However, raccoons that are causing damage or posing a health threat may be shot legally (only by the landowner) at any time (§29.1-517). Despite this authority given to landowners, many cities and towns in Virginia have local ordinances that prohibit the discharge of firearms within their incorporated limits, thereby preventing a landowner who lives in such an area from using this option.

## Toxicants/Fumigants

At this time, nothing is registered nor authorized as a lethal chemical product for use on raccoons; therefore, use of any chemical as a toxicant or fumigant on raccoons is illegal.

## Conclusion

Raccoons are common throughout the commonwealth, so the probability of someone interacting directly or indirectly with a raccoon is fairly high. Residents should take steps to eliminate or minimize conditions around their home, farm, or business that may attract raccoons and thus reduce the potential for such interactions to

turn negative. Never feed raccoons, secure all trash receptacles to prevent access by raccoons, and assure that the home or other buildings are secure to prevent raccoons from gaining entry. In the event that a raccoon takes up residence in a building or otherwise poses a potential danger to the occupants, consider using the services of a professional wildlife control operator to resolve the situation properly and in conformance with all laws and regulations. Should you surprise or come in close direct contact with a raccoon, back away and do not attempt to engage in any physical contact. If you are attacked or are involved in a direct encounter with a wild raccoon in which you are scratched, bitten, or exposed to the animal's saliva, contact your personal physician and local Department of Health for guidance on the need for testing and treatment. If it is possible to safely capture or kill that individual (without damaging its head), having the culprit will be helpful to determine whether rabies treatment is warranted.

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