Raccoon Ecology Damage Management

Raccoons are well known to most Wisconsin residents. They can be found statewide and in surprising numbers. The raccoon's scientific name, Procyon lotor, can be roughly translated as "before the dog" (denoting its distant relationship to the dog family) and "a washer," referring to its habit of washing its food. Most people know them simply as raccoons or coons. These common names are derived from the Algonquin Indian word "arakun," which means "he who scratches with his hands" and probably refers to the animal's dexterous use of its forepaws.



DESCRIPTION

The raccoon has a robust body, broad head and pointed nose. Its ears are 1¹/₂ inches long, rounded and erect. Black, alert eyes reflect the raccoon's intelligence and curiosity. With its distinctively ringed tail and black face mask, the raccoon is probably one of the first wild animals that children learn to recognize. Raccoon fur is 1-2 inches long and usually a grizzled gray or silver tipped with black; however, buff brown, black, dull yellow or orange variations can occur. Pure black, white or red color phases rarely appear in the wild but have appeared in some captive raccoons through selective breeding practices.

The soles of a raccoon's feet are naked, and each of its five toes bears a short, curved claw. The forefeet are similar to

14-40 lbs.

human hands in appearance and their ability to manipulate objects. The hind feet can rotate nearly 180 degrees, allowing the raccoon to climb equally well up or down a tree. A combination of flat feet, short legs and a robust body gives the raccoon a shuffling gait as it

walks. Raccoons make a variety of vocal sounds, including a harsh growl or snarl, a rasping scream, a low grunt and a loud purr. Adults average 14-24 pounds but may reach 40 pounds and exceed 3 feet in length. "A combination of flat feet, short legs and a robust body gives the raccoon a shuffling gait as it walks." "Raccoons eat more during autumn than other times of the year to build fat reserves for the winter." Raccoons are omnivorous, which means they eat both plant and animal matter. In fact, there isn't much they won't eat. Common foods include nuts, fruits, berries, seeds, insects, fish, frogs, turtles, eggs, birds, mammals (especially young ones), crayfish, carrion and garbage. In agricultural areas, corn may represent an important food source during winter and early spring. A raccoon's diet varies with the seasonal availability of particular food items.

The raccoon's habit of "washing" food in water is widely known. Actually, raccoons do not always dunk their food, even when near water, and certainly will not hesitate to eat when water is unavailable. Many theories have been proposed to explain this strange habit, but the most logical seems to be based on observations of raccoons searching with their forepaws in water for crayfish and other aquatic-based food items.

Raccoons eat more during autumn than other times of the year to build fat reserves for the winter. During the fall, adult raccoons accumulate a layer of fat that may be more than an inch thick on some parts of the body. Juvenile raccoon weights may more than double between summer and mid-November. By spring, however, many raccoons have lost as much as 50% of their fall total body weight. Raccoons that do not build adequate fat reserves (primarily late-born juveniles) may die of starvation before the winter is over.

HABITS & HABITAT

Raccoons are habitat generalists and can be found in forested, wetland, and grassland areas, as well as urban, suburban, and agricultural settings. As nocturnal animals, raccoons are most active from an hour before sunset to an hour after sunrise. Males tend to roam farther than females during the night. Both sexes use the same types of habitat while foraging for food.

During the daytime, raccoons rest in ground beds which are often located on high places in swamps or A snowfall or temperatures below 20°F cause raccoons to seek shelter in winter dens until warmer weather returns. Since no reduction in heart rate or body temperature accompanies winter dormancy, raccoons do not actually hibernate. When temperatures approach the freezing mark, raccoons will venture out in search of food.

The size of local raccoon populations is determined by habitat type, winter severity, food availability,

marshes or in agricultural fields. They may also use hollow trees, rock crevices, burrows, caves and buildings. Squirrel leaf nests or large, abandoned bird nests are favorite resting places during spring and autumn. The distances between daily resting sites may be as great as one mile; the same site is seldom used for two consecutive days.



Raccoon and human tracks.

levels of disease and parasitism. Although there is no statewide population estimate, raccoon densities can approach one animal per 12-20 acres where food may be abundant and cover is plentiful. In good habitats, the average density of raccoons is probably one per 30-40 acres, with the highest densities in southern and central Wisconsin.

harvest pressure and

REPRODUCTION

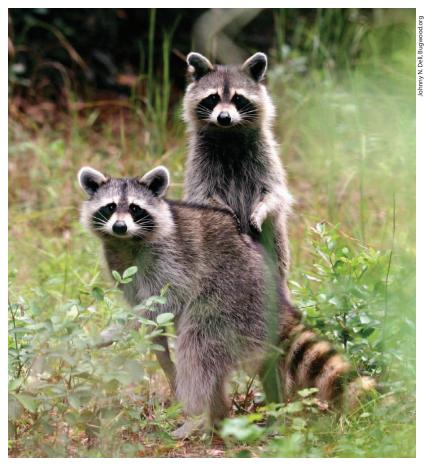
Raccoons breed during February or early March as temperatures begin to increase. An average of four young are born during April or May, following a 63-day gestation or development period. At birth, young raccoons weigh only a few ounces, have their eyes closed and are helpless. Dens are generally located in tree hollows, caves, brush piles, rock crevices, buildings or other man-made structures.

At 1-2 months of age, young raccoons begin to make short trips away from the den. They remain with their mothers during the spring and begin to establish their independence by late summer. The young often continue to den with or near their mother during the first winter but strike off on their own the following spring when they are 13-14 months old. The movements of yearling females are less extensive than those of their male counterparts. Yearling raccoons usually travel less than five miles, whereas adults may travel as far as 150 miles.

Raccoons do not make good pets. Young raccoons are frequently found after the raccoon family is evicted from a chimney or attic, or after the mother meets with an accident. Resist the urge to care for the cute babies beyond assuring their immediate survival. Wisconsin law does not allow taking wild animals as pets. If you are certain that the young raccoons are orphaned, make every attempt to locate a nature

ECOLOGICAL & ECONOMIC BENEFITS OF RACCOONS

Raccoons provide important recreational and economic opportunities for Wisconsin residents, as well as ecological benefits. In and near urban areas, raccoons create non-consumptive recreation for people who like to watch or photograph wildlife. Raccoon hunting with hounds is a very popular sport in Wisconsin. Trappers use a variety of traps and trap-setting techniques to harvest thousands annually. Over the past decade, Wisconsin fur buyers purchased approximately 100,000 (± 20,000-50,000) raccoon



Yearling raccoons stay closer to their place of birth, but adults may travel up to 150 miles.

center, licensed wildlife rehabilitator, or zoo that can properly care for the raccoons. Young raccoons grow quickly, may become aggressive and destructive with age, and may carry rabies or other health risks. A raccoon raised in captivity cannot easily return to a life in the wild after it learns to rely on human handouts. Keeping a young raccoon captive is not beneficial to the animal or to you.

pelts, at an average price of about \$10. The pelts are generally used to make clothing. Raccoons are ecologically important because they help control populations of prey (i.e., rodents) and serve as dinner for predators (i.e., coyotes), in addition to spreading seeds and plants.

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IDENTIFYING RACCOON DAMAGE

Despite the many benefits provided by raccoons, most people are only aware of them when they have a con-

flict. The first step in resolving any wildlife damage situation is to positively identify the culprit.

To identify raccoons, look for tracks, scat (a.k.a. feces), or the animal itself. Raccoon tracks are depicted in on the front page and are a sure way to positively identify raccoons. Raccoon scat (right) can take many forms based on what they are eating,

but generally measure $\frac{5}{16} - 1 \frac{3}{16}$ inches in diameter and $3\frac{1}{2} - 7$ inches long and commonly contain the remnants of seeds, fur, and other food items.

Raccoons are well adapted to living in urban and suburban residential areas. Damage and nuisance situa-



Raccoon scat.

tions often arise when raccoons upset trash containers, raid gardens and bird feeders, or take residence in chimneys, attics and other places where they are unwanted.

In rural settings, raccoons may ransack crops or poultry houses, destroy waterfowl and pheasant eggs, or cause damage in unoccupied trailers, cottages and second homes. In campgrounds, raccoons may

raid coolers, tents and picnic tables.

CONTROLLING RACCOON DAMAGE

Controlling raccoons is not difficult but requires persistence and proper technique. Do not feed pets outside as pet food serves as a raccoon attractant, and be vigilant that bird feeders are not being used by raccoons. Removing the food or cover that originally attracted the raccoons is often a simple and successful means of alleviating the problem. A second alternative is to relocate or kill the raccoons that are causing damage. Private landowners, including urban homeowners, can legally trap or hunt raccoons all year (except for a short period during the gun deer season) to alleviate a problem situation. However, they should contact a local Wisconsin Department of Natural Resources (WDNR) conservation warden or representative to find out about current regulations before attempting to kill nuisance raccoons or other wildlife, or check the wildlife damage laws and regulations on the WDNR's website (http://www.dnr.state.wi.us/org/ land/wildlife/damage).

PROBLEMS FOR HOMEOWNERS

Raccoons that take up residence in a chimney or attic must first be removed and then kept out by eliminating their access to the area. Never attempt to drive a raccoon from a chimney by starting a fire! Instead, repel the raccoon with noise and bright light, or a pan of ammonia or moth balls sealed in the fire box.

> NOTE: Ammonia and moth balls are not registered for use as repellents. The odors are offensive to humans and can harm helpless young animals if applied to a den or nest. Be careful with them!

Professional nuisance wildlife control technicians usually remove the raccoon with a "noose pole" from the top of a chimney. Once the raccoon has left the chimney, cover the top with hardware cloth or a commercial cap. Do not use window screen material because soot and ashes will quickly clog it and create a serious fire hazard. Also, be careful to avoid accidentally sealing a litter of young raccoons in the chimney during late spring and early summer.

Broken windows, vents or boards that allow access to attics or other structures should be repaired. Do not seal an adult raccoon in a building by carelessly covering an opening; such a mistake can spell disaster for both you and the raccoon. To determine whether raccoons are using a den, lightly stuff the entrance with newspapers or rags. If the plug remains undisturbed for two or more days, it is probably safe to seal the entrance permanently. A one-way door placed in front of the entrance will also assure that raccoons are out of the building.



If overturned trash cans are a problem, try putting them out just before pickup. Tight-fitting lids secured with an elastic shock cord will foil most raccoons' attempts to scavenge your trash. Do not encourage raccoons by feeding them scraps or leaving pet food where they can reach it.

Raccoons may roll up newly laid sod to search for grubs and other insects in the soil, or dig through es-

tablished lawns looking for food. Staking sections of chicken wire or hardware cloth flat across the damaged sections of lawn may prevent further damage. To avoid damage before it begins, treating your lawn with a grubicide or other type of insecticide can reduce the amount of grubs and other insects in the soil, thereby eliminating a raccoon's motivation for digging.

AGRICULTURAL PROBLEMS

Raccoons are very fond of many garden crops, especially sweet corn. Raccoon damage is easily identified by pulled-down corn stalks, tangled corn rows, and partially eaten cobs where the husks have been pulled back.

For a small plot, construct an inexpensive single strand electric fence using standard fencing wire or a product called electri-cord. The fence does not have to be extremely sturdy, but it is important that the wire be strung eight inches above the soil. Be aware of pets and young kids in the area who may be at risk if they touch the electric fence, and check with



Corn damaged by a raccoon.

your local zoning official to ensure the legality of an electric fence in your municipality. Chemical repellents such as moth balls and blood meal are seldom effective. You might also try housing a dog out near

> the garden. An inexpensive radio left playing in the garden overnight under a garbage can or pail will often discourage raccoons from coming near. Some gardeners claim to repel raccoons successfully by planting squash, pumpkins or other prickly vines around their corn.

In large commercial corn fields, the only source of relief from damage may be to reduce the local raccoon population. Raccoon hunters and trappers can be a valuable source of help. Contact the nearest WDNR office for the names of local sports clubs or members of the Wisconsin Trappers Association (WTA; www.wistrap.org). The WTA publishes an annual list of trappers who assist with nuisance animal removal. These qualified people can help minimize raccoon problems.

Raccoons will eat adult and young poultry. Frequently, a bird killed by a raccoon has been decapitated and the head is found away from the body, and the crop, breast, and intestines of the bird may be chewed and eaten. If raccoon predation is occurring, completely enclosing poultry in an area surrounded by chicken wire with mesh size ¹/₂ inch or less can prevent raccoons from attacking birds. Raccoons are excellent climbers, so a roof must be attached to the sides, and the bottom of the sides should be anchored to the ground to prevent raccoons from wiggling under the wire. Securing poultry during evening hours in a coop or other type of structure inaccessible to raccoons can keep birds safe. Bright lights, guard dogs, or other harassment measures, as well as trapping, may also help.

TRAPPING

Raccoons can easily be live-trapped and removed if they are causing problems. Wire live-traps are available at most hardware stores, garden centers or agricultural co-ops and should cost about \$55. Raccoons are large and powerful, so a large trap with some reinforcing wire or bars is necessary. It may also be necessary to anchor the trap to a tree or the ground to prevent a caged raccoon from flipping the trap and escaping. The trap should be 32-42 inches in length and have an entrance that is 10-12 inches square. Bait the trap with pet food, sardines or table scraps. If domestic cats live in the area, it is better to use non-meat baits such as marshmallows, sweet corn, fruit jam, watermelon or sweet breakfast cereals. A captured raccoon should be relocated at least 10 miles from where it was caught. Before releasing a raccoon on private land, you are required to obtain the permission of the landowner; a WDNR permit is necessary before a release on public lands. Be extremely careful when handling a raccoon in a live trap. The animals can snap quickly, bite hard and may carry one of several diseases that can be transmitted to humans. In some cities, small businesses specialize in the removal of nuisance animals and will handle the raccoon problem for you at a reasonable fee. Referral lists are available from USDA-Wildlife Services offices, or you can check under "Pest Control" or "wildlife" in the business listings of your local phone book.



DISEASE

Raccoons can transmit canine distemper, parvovirus, rabies and *Baylisacaris*, to domestic animals and humans. Distemper has been the cause of several major raccoon epidemics in Wisconsin. A form of parvovirus, which causes fatal enteritis, was identified in Wisconsin raccoons beginning in the early 1980s.

Raccoon rabies is a serious problem in the eastern United States. Only a few cases have been diagnosed in Wisconsin, but the disease could become more of a problem here in the future. Raccoons also carry an internal parasite (a roundworm) called *Baylisacaris*. The parasite's eggs are shed in the feces of raccoons and can be transmitted to humans by contact. *Be careful* if cleaning up or handling raccoon feces! Wash thoroughly after exposure and be attentive to sanitation if children are exposed. You should avoid any raccoon that is active during daylight hours, has lost its fear of humans and appears uncoordinated, confused or listless.

If any animal displaying these symptoms is encountered, contact a local public health department, police department, WDNR conservation warden or wildlife manager immediately. Disease is most often prevalent in raccoon populations that are too large to be supported by available food and habitat. "Raccoons also carry an internal parasite (a roundworm) called *Baylisacaris.* The parasite's eggs are shed in the feces of raccoons and can be transmitted to humans by contact. "

MANAGEMENT

Between 1936 and 1950, the Wisconsin Conservation Department sponsored a major raccoon propagation and release program that was responsible for releasing more than a thousand raccoons during some years. The program was discontinued, however, when research indicated that the released raccoons did not significantly supplement the low raccoon numbers of the time. During the late 1950s and 1960s, raccoons expanded their range and increased in number. The raccoon population in Wisconsin is robust, as the large number of dead raccoons along state highways indicates.

Wisconsin DNR statewide management goals aim to maintain raccoon harvests at their present level. Changes in raccoon abundance are monitored by noting the harvest levels of trappers, hunters and fur buyers. Harvests are managed by manipulating the length and opening date of the hunting season.



This fact sheet is part of a series designed to help you successfully manage wildlife damage problems on your property. The series includes additional publications which focus on controlling damage from specific animals, plus an introduction to wildlife damage management.

MORE INFORMATION

Boggess, E. K. Raccoons. *In Prevention and Control of Wildlife Damage*. Editors, Scott E. Hygnstrom, Robert M. Timm, Gary E. Larson. 1994. University of Nebraska-Lincoln. 2 vols.

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USDA APHIS Wildlife Services, 866-4USDAWS (487-3297)

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