



The Raccoon

(*Procyon lotor*)

Robert Bluett and Scott Craven

Description

Raccoons are the only representatives of their biological family that inhabit Wisconsin. Their closest relatives are ringtails, coati mundis and pandas. 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." 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.

The raccoon has a robust body, broad head and pointed nose. Its ears are 1½ 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 human hands in appearance and their ability to manipulate objects. 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 three feet in length.



Front foot



Hind foot



Walking

Food

Raccoons are omnivorous, which means they eat both plant and animal matter. 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.

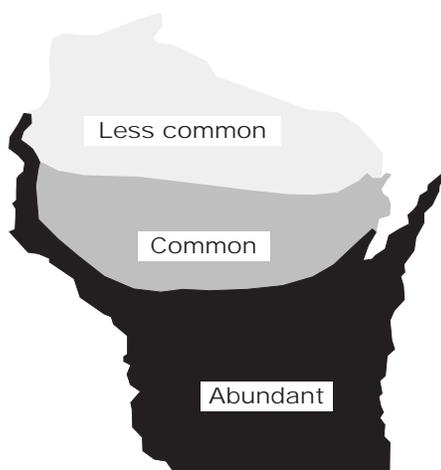
The raccoon's habit of "washing" food in water is widely known. Actually, raccoons do not always dunk their food, even when near water, and certainly will not hesitate to eat when water is unavailable. Many theories have been proposed to explain this strange habit, but so far only raccoons know why they "wash" their food.

Raccoons eat more during autumn than other times of the year to build fat reserves which supply energy during winter dormancy. 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 increase more than 120% 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) often die of starvation before the winter is over.

Habits and habitat

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 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 nesting sites may be as great as one mile; the same site is seldom used for two consecutive days.

A snowfall or temperatures below 20°F cause raccoons to retire to 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 interrupt their dormancy to forage for food.



The density of local raccoon populations is determined by winter severity, food availability, harvest pressure and levels of disease and parasitism. High raccoon densities exist in river bottoms or agricultural areas that are well-interspersed with woodlands and waterways; medium densities occur in woodlands, wetlands, prairies and extensive agricultural or residential areas; low densities are typical in extensive evergreen forests. In residential areas, where food may be abundant and cover is plentiful, raccoon densities can approach one animal per 12–20 acres with even higher local populations.

In good habitats, the average density of Wisconsin raccoons is one per 30–40 acres. Raccoons are abundant in the southern two-thirds of the state (fig.1). Populations in the northern one-third of the state are not dense — localized situations notwithstanding — due to severe winters, lack of favorable habitat and fewer available food sources.

Reproduction

The breeding season peaks during February or early March as temperatures begin to increase. Yearling males (those born the previous spring) generally do not contribute to reproduction. However, a study conducted in southwestern Wisconsin indicated that about 30% of yearling females may produce a litter. Approximately 80–90% of females 1½ years of age or older successfully produce a litter each year. Females that fail to mate during the winter months may continue their attempts to produce a litter until early summer.

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 not orphaned, make every attempt to get them back to their mother. If the mother has been killed, attempt to locate a nature center, licensed wildlife rehabilitator or zoo that can properly care for the raccoons. Young raccoons grow quickly and may become aggressive and destructive with age. 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.

Figure 1. *Raccoon population density in Wisconsin as determined by raccoon harvest, vegetation, land use, annual snowfall and average temperatures.*

Raccoon damage and control

Raccoons are well adapted to living in urban and suburban residential areas. Damage and nuisance situations 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 raid crops or poultry, 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 raccoons is not difficult but requires persistence and proper technique. 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 destroy 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 Department of Natural Resources conservation warden or representative to find out about current regulations before attempting to destroy nuisance raccoons or other wildlife.

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. Also, be careful to avoid 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.

Agricultural problems

Raccoons are very fond of many garden crops, especially sweet corn. Raccoon damage is easily identified by pulled-down corn stalks and tangled corn rows. 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. 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 DNR office for the names of local sports clubs or members of the Wisconsin Trappers Association. These qualified people can help minimize raccoon problems.

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 \$35. Raccoons are large and powerful, so a large trap with some reinforcing wire or bars is necessary. The trap should be 32–42 inches in length and have an entrance that is 10–12 inches by 12 inches. 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 DNR 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 Control offices.

Disease

Raccoons can transmit canine distemper, parvovirus, rabies and *Baylisacaris*, to domestic animals and humans. 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, DNR 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.

Distemper has been the cause of several major raccoon epidemics in Wisconsin. A form of parvovirus 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 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 and keep children away.



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 current raccoon population continues to be very good as the large number of dead raccoons along state highways indicates.

Raccoons provide important recreational and economic opportunities for Wisconsin residents. In and near urban areas, raccoons create non-consumptive recreation for people who like to watch or photograph wildlife. Likewise, raccoon hunting with hounds is a very popular sport in Wisconsin. Hunters and trappers harvested more than \$1 million worth of raccoon pelts each year of the 1990s. Trappers use a variety of traps and trap-setting techniques to harvest thousands annually. A local dealer usually buys the furs from the hunter or trapper and then sells them in large shipments to dealers in other states and countries. The pelts are generally used to make clothing.

Statewide management goals aim to maintain 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. Raccoon hunters prefer earlier opening season dates due to greater raccoon activity in warmer weather and better trailing conditions for dogs. Average pelt values, daily temperatures and the presence of snow during the legal season also affect harvest effort and success during a particular year.

For more information, trap loans and nuisance wildlife contractor referral lists, contact the USDA—Wildlife Services office in Waupun at 1-800-433-0688 or Rhinelander at 1-800-228-1368.

Further reading

- Jackson, H. H. T. *Mammals of Wisconsin*. Madison: University of Wisconsin Press, 1961.
- Rue, L. L., III. *The World of the Raccoon*. Philadelphia: Lippincott, 1964.
- Rue, L. L., III. *Furbearing Animals of North America*. New York: Crown Publishers, 1981.
- Chapman, J. A. and G. A. Feldhamer, eds. *Wild Mammals of North America: Biology, Management, and Economics*. Baltimore: Johns Hopkins University Press, 1982.

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