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WOODCHUCKS AND THEIR CONTROL

by

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Woodchucks, or groundhogs, (Marmota monax) are found in the eastern edge of the Great Plains.

The first part of the scientific name, Marmota, is the Latin word for "marmot," the name given to the European marmot or the North American marmot which are close relatives of the woodchuck. The last part, monax, is an American Indian name for this rodent and means "the digger"; it alludes to the woodchuck's habit of excavating burrows.

The derivation of the common name, "woodchuck," is not clear but is believed by some to be an anglicized corruption of an Indian name for this species. However, the origin of another common name, "groundhog," is obvious from the animal's squat appearance, waddling gait, and habit of living in the ground.

Woodchucks are classified as rodents. Their chisel-shaped teeth are used for eating plants and gnawing, while their short legs and stout body are adapted to burrowing. Strong leg muscles and long, curved claws on their forefeet make them powerful diggers. From head to tail, woodchucks are approximately 20 to 27 inches long and weigh from five to 12 pounds.

Although woodchucks are normally yellowish-brown or dark brown in color, albanistic (white) to melanistic (black) variations occur. The backs of woodchucks have a frosted appearance and their feet are dark brown or black.

The eyes, ears and nose of the woodchuck are all located at the top of the head. This allows them to see over the rim of their burrows without being spotted by predators. The ears and nose of the woodchuck are sensitive allowing them an early warning of danger. Although they are slow runners, woodchucks are alert and quick to scurry to their dens when approached.

Habits

During the summer months, woodchucks are often seen feeding along the edges of fields, periodically rising up on their hind legs to look for danger. The early morning and evening hours are preferred for feeding as woodchucks depend on dew for much of their water intake. Large quantities of succulent plants, such as clover, grasses and plantain are eaten. On occasion, snails, grasshoppers and buds of young trees may also be consumed. In one day, a woodchuck may eat the equivalent of one-third of its body weight.

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Woodchucks often forage into the late morning and resume in mid-afternoon. During the warmest hours of the day, they may be found basking in the sun. Woodchucks sleep on the tops of fence posts, on stone walls, large rocks and fallen logs, all of which are close to a burrow entrance. Even when feeding, woodchucks usually travel no farther than 50 yards from their dens. However, male woodchucks have been known to travel long distances to find a mate. On occasion, woodchucks will travel several hundred yards to eat fallen orchard fruits.

Burrows are typically located on the edges of woodlands, in fields or along fence rows. Woodchucks prefer areas which provide satisfactory cover and are near a food source. Often they will take up residence in stonewalls or woodpiles, using several auxiliary dens for shelter.

Woodchuck burrows are from 25 to 30 feet long and from two to five feet deep. Normally two or three entrances are used, although there may be as many as five entrances. The main entrance is identified by the mound of excavated dirt and stones which surrounds it. Hidden entrances are used for quick escapes from predators. A single chamber is formed at the end of the main entrance burrow which is used for sleeping and the raising of young. Another room is used for urination and defecation. In this way the den is kept relatively clean and free from disease.

In the late summer woodchucks are abundant in fields. Their increased feeding insures a heavy layer of fat from which woodchucks draw nourishment during winter months. As cold weather approaches, woodchucks move to woodland dens. The nesting chamber is lined with dried grasses and leaves to add increased insulation.

Hibernation begins with killing frosts in the fall (late September to early October) and ends in the early spring (March or April) before the snow has fully melted. Woodchucks are one of the few mammals which go into true hibernation. Most animals become stupored for short periods of time (weeks or months), awakening during warm periods to forage for food. However, woodchucks hibernate for $4\frac{1}{2}$ to $5\frac{1}{2}$ months without awakening. During this time their body temperature falls to that of the den and respiration rates drop to approximately one inhalation every five minutes. A reduced rate of metabolism allows woodchucks to live from their fat until spring when food supplies are again available.

Woodchucks awaken early to mate during February or March. Male woodchucks break out of their snow-covered burrows to travel to other nearby dens where females are hibernating. Mating takes place in the den, after which woodchucks resume their hibernation. A mated pair will live in the same den until the young are born, in April or May. There are two to six (usually four) young to a litter and one litter per year. After the young are weaned and partially grown, they disperse to abandoned dens or dig their own.

The average lifespan of woodchucks is four to five years. Hawks and foxes commonly prey on young woodchucks, helping to limit their numbers.

Identification

Woodchucks become nuisances when their feeding and burrowing habits conflict with other land uses. They may feed on home gardens and hay or field crops. Occasionally, woodchucks damage young trees in orchards and nurseries. During the spring they may eat the buds of trees when other food is scarce. Woodchucks have been observed climbing trees for fruit. However, they normally cause little damage to fruit crops as woodchucks prefer to feed on fruit that has fallen to the ground. The burrows and mounds of woodchucks in fields may also cause difficulty in the operation of certain farm machinery in locations where their numbers are unusually high. Alfalfa, soybeans and other domestic legumes are especially attractive to woodchucks.

Woodchuck damage in home gardens may be identified by observing which vegetables are eaten and how they are consumed. Peas, beans and the tops of carrots are most commonly eaten, although woodchucks will forage on most garden vegetables. When pea and bean plants are sprouting, the entire plant is often taken. Corn is not normally damaged by woodchucks. But raccoons or squirrels commonly feed on this crop.

Tracks are a reliable means of identifying the animal causing damage. The forefeet of woodchucks have four toes. The hind feet are two to three inches long. Claw marks will be present in all of the tracks. When an adult woodchuck walks, there are normally four inches between tracks and the hind foot partially covers the forefoot track. In cases where tracks are not present, flour may be sprinkled at damage sites in the garden. Tracks in the flour should be visible the following day.

Control Measures

Woodchucks are usually difficult to control. No method, with the exception of fencing, is considered permanent. Several methods of control by the homeowner may be used without destroying the woodchuck.

The most permanent method of control is fencing. The practicality of fencing depends on the size of the area to be fenced. Fencing also acts to protect the garden from other wildlife and domestic animals or pets. Because woodchucks are excellent burrowers, it is necessary to sink the fencing one to two feet into the ground. The entrance gate into the garden should be sturdy and flush with the fence. Some gardeners prefer to build two separate sets of steps over the top of the fence. When the garden is left, the steps on the outside of the fence are moved. Because woodchucks are good climbers, they may even enter a fenced garden. One foot of fencing, bent outwards from the top, should deter climbing woodchucks. Electric fencing has been used with varying degrees of success. If damage continues, other control methods may be used to remove the woodchuck.

Live-trapping may best serve to remove one or two problem animals from an area. Where food is abundant, woodchucks may not enter live-traps for bait. Traps may be placed at burrow entrances or at the site of damage and should be baited with apples or other fresh fruit. Metal live traps are most efficient, because woodchucks may chew their way out of wooden box traps. Traps should be checked in the morning and evening so that trapped animals are dealt with humanely. After woodchucks are trapped, they should be transported no less than five miles and released in a suitable habitat. Woodchucks should not be live-trapped in the fall immediately before hibernation or during the spring while young are in the dens. Animals trapped and released before hibernation may not be able to locate dens. Trapping female woodchucks in the spring may cause the death of their young.

Where fencing is not practical and woodchucks are too abundant to live-trap, gas cartridges can be employed. Dens should be gassed in the early spring when active burrows may be most readily located. Burrows should be observed to insure that the use is by woodchucks to minimize damage to other wildlife. Tracks at den entrances should be identified. Gas cartridges should not be used near dry brush or buildings because of fire hazard. It is illegal to use gas cartridges to kill furbearers or other game species. Follow directions on the label to insure safe use of cartridges.

In some cases, the use of a telescopic rifle may be necessary to eliminate problem woodchucks. A hunting license must be obtained and safety precautions taken. In recent years there has been no closed season or limit on the number of woodchucks that may be shot. They should be hunted during late July, August and September after the young have left the dens. If woodchucks are hunted or live-trapped in the spring or early summer, their dens should be gassed to minimize the suffering of the young.

Environmental Importance

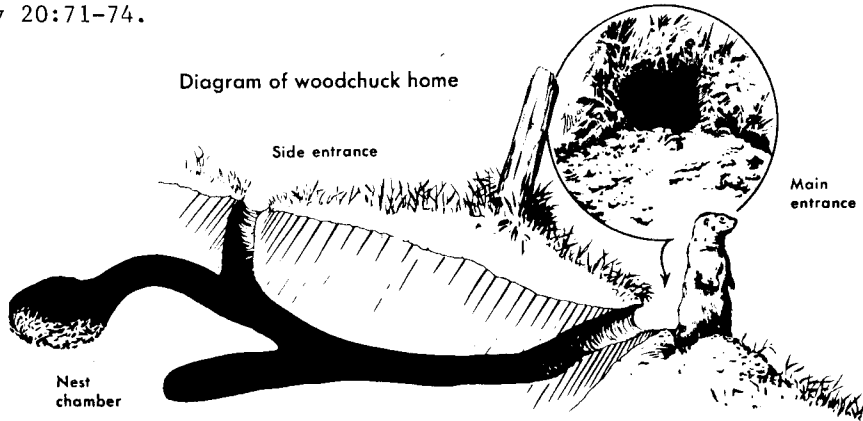
Woodchucks are considered by some persons to be one of the most important residents of the rural wildlife community. Without the activity of woodchucks the abundance of game along the field edge would not be as plentiful. Their abandoned dens provide escape cover and shelter for rabbits, raccoons and opossum. Chipmunks often enter burrows during the winter while weasels use them for temporary refuge. Skunks and foxes, which feed on crop-damaging insects and field mice, frequently take up residence in woodchuck dens. Woodchucks indirectly help the farmer by providing homes for beneficial wildlife and shelter for game animals.

Additional Information

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WOODCHUCK (*Marmota monax*)

