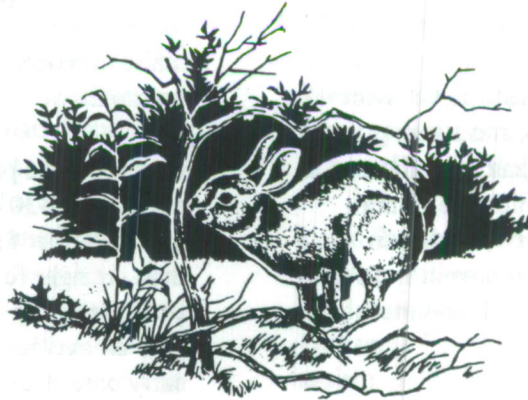


Eastern Cottontail Rabbit (*Sylvilagus floridanus*)



Description

Mature eastern cottontail rabbits weigh from 2 to 3 pounds each and vary in length from 15 to 18 inches. Visible parts of the body are almost entirely buff or rusty brown. Underparts, including the throat and undersides of the tail, are white. Rabbits have long sensitive ears and their eyes are placed in the sides of their heads, allowing them to see in almost every direction.

Distribution & Abundance

Cottontail rabbits are found in most parts of North and South America. There are 13 species of cottontails in North America alone. Illinois has two species, the swamp rabbit (*Sylvilagus aquaticus*) and the eastern cottontail (*Sylvilagus floridanus*).

The swamp rabbit is much larger than the eastern cottontail, weighing 2.5 to 6 pounds. In Illinois it occurs only in forested wetlands in the southern part of the state.

In North America, the range of the eastern cottontail includes southern Canada, the eastern two-thirds of the United States, the extreme southern Rockies and much of Mexico. In Illinois, the eastern cottontail occurs in every county, and is one of the most abundant mid-sized mammals.

Habitat

The cottontail thrives in urban and suburban areas, as well as open landscapes where crops, grasses and woods are about equally distributed. Ideal cottontail habitat consists of a variety of cover types and food plants. Cottontails are most abundant in areas of weeds and grass mixed with second-growth woody vegetation and briars. In winter, cottontails concentrate in briar patches, shrubby fencerows, and brush piles. Pastured woodlots and mature forests are not good rabbit habitat.

Cottontails were probably not abundant in Illinois when Europeans arrived. As agriculture expanded in the state, cottontail habitat increased when large forests and grasslands were reduced in size and mixed with small fields of grain and legumes. More recently, as farm and field size increased, and clean farming destroyed hedges, fence rows, grasslands, and brushy areas, the rabbit population has decreased from its historic high.

Habits

The home range of a single rabbit is small. Adult females usually don't move outside of an area of about 3 acres and adult males usually stay within 8 acres. One acre can be sufficient if the cover and food supply is good.

Cottontail activity is greatest at dawn and dusk. Nighttime activity is fairly common especially on moonlit nights. Activity increases when the air temperature is 0-33 degrees, except in rain.

There are 2 general kinds of escape behavior exhibited by rabbits, flushing and slinking. Flushing is a rapid, often zigzag movement to an established travel lane, on which the animal moves at maximum speed to cover. When slinking toward cover, the body remains close to the ground, the ears are laid back and movement is slower.

Cottontails are food for a variety of predators, such as hawks, owls, weasels, foxes, bobcats, mink, free-running dogs, and roaming cats. Important diseases affecting rabbits are a brain disease that is fatal to juveniles, and an intestinal disease. Another disease, tularemia, is 100 % fatal, but only a few rabbits of the total population are usually affected. All causes of death account for the demise of 9 out of 10 young and 8 out of 10 adults each year, in both hunted and unhunted populations.

Foods

The cottontail is a vegetarian. Feeding occurs most frequently in late evening and early morning in summer, and during the middle of the night in winter. Succulent grasses make up over one-half of the spring and summer diet. Clover, dandelions, alfalfa, and other succulent broad-leaved plants are eaten during the spring and summer. In fall and winter, rabbits eat fruits, waste grain, and the seeds, buds, and bark of blackberry, dewberry, rose, willow, hawthorn, sumac, orchard trees and ornamental shrubs. Rabbits are caprophagous: they will eat their green droppings of the previous day which contain large amounts of vitamin B.

Reproduction

While capable of breeding at 2 months of age, most rabbits reach sexual maturity at 6 months. Males and females do not pair off even for one season. April and May are the peak mating

months, but mating begins in February or March and will continue through September. Courting activity can begin as early as January. Courting includes running, leaping, and fighting between males and occurs in the early evening and just before dawn.

Gestation, the period between mating and birth, averages 28-30 days. An average litter has 4-6 young. Older females usually have larger litters than younger females. Females that survive an entire breeding season will produce 22 young per year on average. Juvenile rabbits born in the early part of the mating period will mate the same year.

When the young are born, they are hairless, blind and weigh less than an ounce. The doe gives them a quick bath with her tongue and places them in a nest. The nest is usually located in a hole in the ground that the female digs and lines with grass and fur that she pulls from her belly. The young are nursed each night soon after dark and again before dawn. During the day, the doe covers the nest with a lid of grass and leaves.

Young rabbits grow quickly. They open their eyes by the end of one week, and at two weeks of age leave the nest for short periods to feed on green plants. During their third week of life, the young often spend the day in tiny forms or grass shelters near the nest, returning to the nest at night. If the nest is disturbed at this time, the young rabbits may abandon it. By the fourth week, most juveniles leave the nest forever. At that time the doe is often ready to give birth to her next litter.

Conservation

On agricultural land, rabbit numbers can be increased by creating escape cover, emergency food, and safe nesting areas. Allow weeds, grass, shrubs, and briars to grow in fence rows, and make brush piles. To manage any area of 2 to 3 acres specifically for rabbits: plant grass and legume strips; construct 4 brush piles per acre, with each pile about 5 feet high and 15 feet in diameter; plant 1 or 2 small patches of corn or

sorghum per acre; the following year allow these patches to grow up in weeds or plant legumes.

Cottontail habitat can be improved by creating a mixture of old fields and briar thickets that break up large parcels of cropland. Also encourage shrub growth for rabbits. Some native shrubs that are good for cottontail habitat include blackberry, raspberry, sumacs, dogwoods, viburnums, hazelnut, wild plum, and highbush cranberry. Habitat management for rabbits also benefits gray catbird, brown thrasher, common yellowthroat, field sparrow, northern cardinal, rufous-sided towhee, American goldfinch, indigo bunting, and northern bobwhite.

Hunting rabbits helps to lower the incidence of disease and makes use of the annual surplus of animals. Hunters should shoot only hard-running, healthy rabbits, clean them using rubber gloves, and cook them thoroughly. Hunters should not feed rabbit entrails to dogs. Rabbits carry the eggs of canine tapeworms, and dogs can become infested with tapeworms if they eat rabbit entrails.

Once the most abundant game animal in the state, rabbit populations have steadily declined because of the loss of suitable habitat. The cottontail, with its ability to reproduce rapidly and to run away from most dangers, will be an important

species of Illinois wildlife for some time to come, if we work actively to restore habitat.

DNR's Division of Wildlife Resources offers technical assistance to landowners who are interested in establishing cottontail habitat on their properties. Call 217/782-6384 for the name of your District Wildlife Habitat Biologist.

Local Pheasants Forever or Quail Unlimited chapters will assist landowners with rabbit habitat management. To learn more about Pheasants Forever, request habitat management assistance, or join a chapter, call 217/446-2958, or visit <http://www.pheasantsforever.org/>. To find out about Quail Unlimited, request assistance, or join a chapter, call 812/536-2272, or visit <http://www.qu.org/>.

The USDA's Natural Resource Conservation Service and local Soil and Water Conservation Districts (SWCD) offer assistance to landowners with planning and establishing filter strips, riparian buffers, and farmstead and field windbreaks. There is a SWCD office in nearly every county.

Private non-profit organizations can apply for grants from the Illinois Wildlife Habitat Fund for habitat projects that benefit rabbit populations in the state. Contact the Division of Wildlife Resources at 217/782-6384 for an application.

Selected References

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Wild Mammals of North America: Biology, Management and Economics by J.A. Chapman and G.A. Feldhamer (eds.). Johns Hopkins University Press, Baltimore, Md. 1982. ISBN 0-8018-2353-6

<http://www.fsa.usda.gov> (agricultural conservation programs)

<http://dnr.state.il.us/prairie/table.htm> (prairie establishment and landscaping)

http://animaldiversity.ummz.umich.edu/accounts/sylvilagus/s._floridanus (rabbit biology)

<http://www.conservation.state.mo.us/manag/rabbit/rabmang.html> (rabbit management)

Wildlife Conservation in Illinois - Ten Ways to Make a Difference

- ◇ Hunters and trappers contribute millions of dollars toward habitat conservation. Areas purchased or managed with these funds provide homes for hundreds of species. Even if you don't hunt or trap, you can join in by purchasing a **Habitat Stamp** (\$5.50) or **State Migratory Waterfowl Stamp** (\$10.50) at the sporting goods section of most discount stores. Sporting a "Sporting Series" license plate on your car or truck is another way to support habitat conservation. For information, contact the Secretary of State at 1-800-252-8980 or visit <http://www.sos.state.il.us> and select the "Online Facility".
- ◇ Turn your backyard into a more friendly place for wildlife. For tips on how to put out the welcome mat, order "**Backyard Conservation**" by dialing 1-888-LANDCARE or visiting the website at <http://www.nhq.usda.gov/CCS/Backyard.htm>.
- ◇ Hundreds of laws help protect wildlife and their habitat. You can assist your local Conservation Police Officer in keeping an eye out for poaching, pollution and other threats to the environment by participating in DNR's **Resource Watch Program** (217-782-6431).
- ◇ Participate in DNR's **Acres for Wildlife Program**. A wildlife biologist will visit your property, prepare a management plan tailored to your goals and help you get started by providing access to planting equipment and no-cost or low-cost grass, trees and shrubs. Call 217-782-6384 to get the name and phone number of your local biologist.
- ◇ Help monitor Illinois' streams and forests by becoming a trained Citizen Scientist. For information about the **EcoWatch Network**, call 312-814-4747 or visit <http://dnr.state.il.us/inringif.htm>.
- ◇ Illinois law requires young people to take a special training course and pass a test before they can purchase a license for hunting or trapping. You can help teach them about laws, safety, ethics and wildlife conservation by becoming a certified instructor in DNR's **Safety Education Programs** (1-800-832-2599).
- ◇ Teach others about the environment. Be a **volunteer facilitator** for Project WILD, Project WILD Aquatic, Project Learning Tree or Project WET (217-524-4126).
- ◇ Contribute to the **Wildlife Preservation Fund** on your state income tax form. Interested in making a donation for a specific project? Contact the **Illinois Conservation Foundation** (1-312-814-7237).
- ◇ Join a **conservation organization** like Pheasants Forever, Ducks Unlimited, Quail Unlimited, or the National Wild Turkey Federation. Membership fees support wildlife conservation and some local chapters offer a chance to get involved with "on the ground" projects in your area.
- ◇ Take someone with you the next time you go **hunting or trapping**. These activities are highly regulated and can help keep wildlife numbers at acceptable levels, reduce damage to human property, provide funds for conservation, and obtain many different materials and products for human use.

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The rabbit line drawing by Olin Harris.

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