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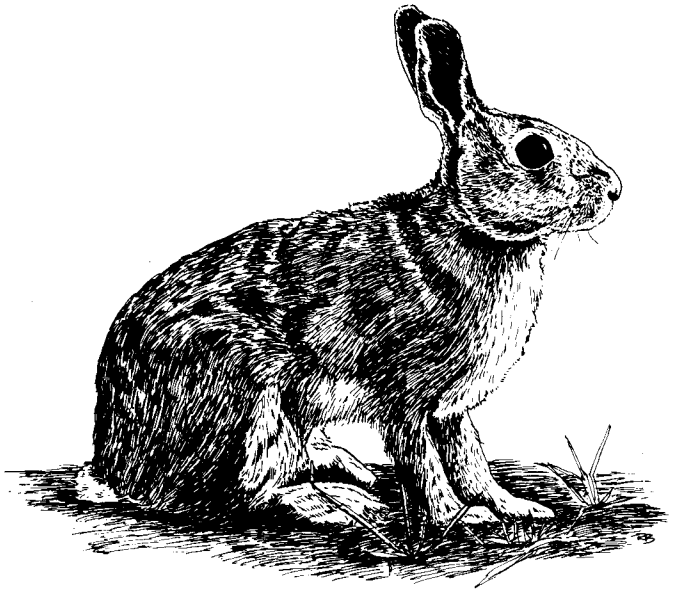
COTTONTAIL RABBIT: *Eastern Cottontail (Sylvilagus floridanis)*

NEBRASKA WILDLIFE

Nebraska Game and Parks Commission



COTTONTAIL RABBIT

Eastern Cottontail (Sylvilagus floridanis)

Description: The most distinctive features of the eastern cottontail are its long ears, long hind legs and short white tail. An adult cottontail is about 15 to 18 inches long and weighs between two and three pounds. It varies in color from gray to brown and has a rust-colored patch on the back of its neck.

Distribution and range: Although eight species of cottontail rabbits occur in the United States, only two inhabit Nebraska. The eastern cottontail is the most widely occurring cottontail in the United States and is found throughout Nebraska. The desert cottontail occurs only in the western part of the state, primarily west of Ogallala. Neither species occurs in the vast dry uplands of the Sandhills, but both can be found in the bottomland habitat there.

Habitat and home: A cottontail is attracted to field and cover edges and early successional, or weedy, habitats. The eastern cottontail can be found almost anywhere two types of cover meet; however, it prefers a mixture of grass, forbs such as wildflowers or weeds, and dense thorny shrubs. It most prefers ground cover that is a mixture of open areas and dense vegetation. In Nebraska, fencerows, shelterbelts, streamsides, and roadsides are locations where this type of habitat may be found.

The Conservation Reserve Program has allowed for the development of excellent habitat in which weeds grow before planted grasses become established. However, after two years these fields become pure stands of grass which will not support many rabbits.

A cottontail must rely on shrubs or woody cover for escape cover, and the denser and thornier that cover is, the better the rabbit likes it. Succulent forbs are also necessary for nutrition. Habitat that is capable of supporting cottontails is decreasing throughout the rabbit's range, as a result of aging and deteriorating shelterbelts, the removal of hedge rows, the farming of roadsides, and the overgrazing of pastures, streambanks and lakeshores.

All habitat components needed by an animal are found in its home range. The female cottontail's home range is one to 15 acres in size, while the male's may be as much as 100 acres.

A rabbit uses above-ground structures called "forms" and underground holes such as those of badger, prairie dog and woodchuck for escape and shelter. Forms are pockets the rabbit creates by trampling down small areas of grass and small shrubs. It uses forms at night and during daytime rest periods throughout the year, even during the reproductive period. After her litter is born, the female cottontail stays in a form near the nest, only visiting her nest at dawn and dusk. The cottontail uses underground holes for emergency escape throughout the year and during winter for shelter.

A rabbit nest is a shallow depression that the female digs and lines with grass and fur. Because the female does not stay at the nest after the litter is born, she covers the young with grass and fur to help protect them from predators while she is away.

Habits: You may see a cottontail at any time of the day or night but the rabbit is most active at dusk and dawn. Its activity during midday is greatly decreased unless the sky is heavily overcast.

Different behavior patterns are used by a threatened rabbit. If the danger is far away, it may freeze and remain motionless, using its background as camouflage. When the threat is near, the rabbit moves quickly to nearby thick cover such as a thicket or brushpile. When cornered, it may thump its pursuer with a hind foot to stun it and then make a break for freedom. A rabbit may make a shrill, high-pitched squeal when it is captured.

A cottontail may easily go into shock when captured. A person who finds it necessary to handle a cottontail should cover the captured or injured rabbit's eyes and handle it very slowly and carefully.

A cottontail produces two types of droppings -- hard and

brown or soft and green. The softer pellets are eaten again to further break down food. This is called coprophagy.

Foods: Basically a vegetarian, the cottontail eats primarily grasses and legumes, such as clover and lespedezas, during the growing season. A young rabbit consumes a considerable amount of forbs such as dandelions, ragweed and prickly lettuce. It eats numerous crops such as soybeans, wheat and corn, and during the non-growing season, young shoots and buds. When more preferred foods are scarce its diet may also include twigs and bark, and when other foods are not available, it may resort to eating non-plant foods such as snails or carrion.

Reproduction: The breeding season begins in February in Nebraska. With a gestation period of 28 days and the capability of a female to become pregnant the day after giving birth, litters can be produced on a monthly basis. By late June this efficiency breaks down and the female may not breed for several days or not at all after giving birth. A female cottontail may have five to seven litters of four to five young in one year. Therefore, many rabbits can be produced in a year that has suitable weather for food availability and nest survival. In several studies the number of juvenile cottontails taken by hunters in the fall compared to the number of adult rabbits is 80-85%, which is an indication of very high reproductive rates.

Young rabbits are an easy-to-catch and plentiful food for many predator species from weasels to coyotes to birds of prey, making them a very important part of the food chain. As vegetative habitat dries in the fall, escape cover is reduced and the rabbits become more and more exposed to predators. Many of the young produced each spring and summer are not alive by winter and even fewer are available for breeding the next spring. This is the typical reproductive strategy of such a highly used prey species -- produce large numbers of young quickly to ensure that some will survive to reproduce the next year.

Mortality: Predation is the primary direct cause of mortality for the cottontail. Poor habitat conditions, disease and severe weather can all increase its chances of being taken by a predator.

Numerous parasites and diseases affect rabbits. The bacterial disease tularemia can cause a rabbit to be more susceptible to predation by making it less able to detect potentially dangerous movement or to evade capture.

Severe winter storms can cover food sources to the point that a rabbit has to eat low-quality food such as tree bark. During prolonged periods of severe weather, the rabbit's physical condition may decrease to the point that it is unable to evade capture.

Importance: The cottontail rabbit is important as a game animal across its entire range. In the United States, deer are the only game more pursued by hunters than the rabbit or hare. In Nebraska more pheasants, quail and doves are harvested each year than cottontails, which may indicate that rabbits are an underutilized resource. Since the mid-1980s an average of 150,000 cottontails have been taken by approximately 26,000 hunters each year.

Unfortunately, many rabbit carcasses are needlessly discarded by hunters each year due to the presence of two parasites which do not affect man. The larvae of botflies (commonly called warbles) are sometimes found under a rabbit's skin. If the hunter encounters a warble in a rabbit or finds an abscess under the skin where a warble has recently left the rabbit, he can remove that area of the meat and still use the rest of the carcass, provided the meat is cooked properly.

Tapeworm cysts are also found in rabbits. These are sacs of clear fluid that contain small white floating objects and are found attached to the rabbit's liver, intestines and occasionally to its lungs. These cysts are the larval stage in the life cycle of the dog tapeworm. If a dog or wild canid consumes one of these larvae it may develop into a tapeworm, but tapeworms do not develop in humans from these larvae. All of the larvae are normally removed when the rabbit is dressed and any overlooked cysts are destroyed during the cooking process. This disease is often confused with "white spots on the liver" that are known to be indicative of tularemia.

Tularemia is a bacterial disease of rabbits that is transmitible to man, usually through openings in the skin. Hunters who notice small white or yellow spots on the surface of the rabbit's liver when they are field dressing it should discard the entire rabbit immediately. During the early stages of the disease the liver can appear normal, though the infected rabbit may behave oddly, move slowly or be easily captured. It is a good idea to wear rubber gloves when dressing a rabbit and it is important to always cook rabbit meat thoroughly. Tularemia is transmitted between rabbits by fleas and ticks. Rabbits die from the disease, so it is not a problem once there has been a good hard frost and the temperature remains cool. A hard frost kills ticks and fleas which carry the disease, and a rabbit infected prior to the freeze will normally die within a few days of contracting the disease.

Management: Management for the cottontail is habitat related. Management can be accomplished by maintaining small areas of different types of cover to develop the maximum amount of edge (places where two or more different types of vegetation meet). It is necessary to have grass in and around escape cover that is of sufficien height for the cottontail to hide its nests and build forms. Large fields of grass are not as useful as grass intermixed with low-growing thick woody cover. It is a good idea to mow trails in areas of dense vegetation, and moderate grazing and prescribed burning are useful in suitable situations.

Planting a variety of shrub species, particularly thorny shrubs, is recommended, combined with a maintenance program to keep the shrub growing low to the ground and spreading out from its center. If naturally growing escape cover is currently unavailable, brushpiles can be used as an immediate but temporary substitute until planted cover is established. An individual brush-pile becomes useless as escape cover after a couple of years.