



Wildlife Information Guide

COTTONTAILS (Eastern & New England) **(*Sylvilagus floridanus* & *Sylvilagus transitionalis*)**

DESCRIPTION

Two species of cottontail rabbits inhabit New England: the Eastern cottontail (*Sylvilagus floridanus*) and the New England cottontail (*Sylvilagus transitionalis*). While closely related, these species exhibit distinct characteristics and conservation statuses.

PHYSICAL CHARACTERISTICS

Eastern Cottontail (*Sylvilagus floridanus*) The eastern cottontail has speckled brown-gray fur above, reddish-brown fur around its neck and shoulders and lighter fur around its nose and on its undersides. It has big eyes and a tail that is puffy white on the underside. In the winter its fur may be more gray than brown.

Eastern cottontails measure 14-18 inches in body length with a weight range of 2-4 pounds. Their large hind feet (3.5-4 inches) provide powerful propulsion for escape, while their large eyes and ears offer excellent sensory detection capabilities.

New England Cottontail (*Sylvilagus transitionalis*) The New England cottontail is Connecticut's only native rabbit species and appears nearly identical to the Eastern cottontail externally. Key distinguishing features include slightly smaller size, darker coloration, and a distinctive black patch between the ears. Genetic testing is often required for definitive species identification. The New England cottontail has experienced dramatic population declines and is considered a species of conservation concern throughout its range. A habitat analysis was conducted on an island in Narragansett Bay with no known past population by either cottontail species, as a possible refugium for the New England cottontail. Both species exhibit the characteristic "cottontail" white underside of the tail, which serves as a flash pattern during escape sequences.

BEHAVIOR

Cottontail rabbits are crepuscular, meaning they are most active during dawn and dusk hours. This behavioral pattern helps them avoid peak activity periods of many predators.

Activity Patterns Cottontails spend daylight hours in "forms" - shallow depressions



scraped into dense vegetation, brush piles, or under shrubs. These resting sites provide concealment and protection from weather elements. **Predator Avoidance** Remaining motionless and relying on their cryptic coloration is another common predator avoidance behavior. When threatened, cottontails freeze until the last possible moment before exploding into rapid, zigzag flight patterns that can reach speeds of 18 mph.

Territorial Behavior Cottontails maintain small home ranges typically covering 1-5 acres, depending on habitat quality. They establish well-defined travel routes between feeding areas, water sources, and shelter sites. Males may be more territorial during breeding season. **Seasonal Adaptations** During winter months, cottontails adapt their behavior to conserve energy. They reduce activity periods, shelter in more protective locations, and may follow consistent trails through snow to minimize energy expenditure. Both species are excellent swimmers when necessary and can remain submerged briefly to escape predators. They are also capable of climbing sloped surfaces and low barriers when fleeing danger.

REPRODUCTION

Breeding Season In New England breeding occurs from March to September for both species. The breeding season typically peaks from April through August, allowing for maximum reproductive output during favorable weather conditions. **Mating Behavior** Massachusetts cottontails mate as early as mid-February and as late as September and form no lasting bond. Mating involves brief courtship behaviors, with males pursuing females through elaborate chasing sequences. **Gestation and Birth** The gestation period is about 28-30 days, the length varying slightly between individuals and environmental conditions. Females produce multiple litters in this period, usually 4 or 5 per season. Females do not dig their own nest burrows but rather scratch out a slight depression in the ground in an area of dense grass for concealment. The nest is lined with fur and dry grass pulled from the female's body. **Litter Characteristics** Cottontails usually have 2 to 4 litters per year with about 3 to 8 young per litter. Litters average five young (rarely as many as eight), and the female is usually receptive to mating soon after giving birth. Young cottontails are born hairless, blind, and helpless. Their eyes open at approximately 10 days, and they begin leaving the nest at 12-15 days old. Weaning occurs at 4-5 weeks, after which juveniles disperse to establish their own territories. **Reproductive Strategy** Few cottontails live to be more than a year old in the wild, although their potential life span is 3 to 4 years. Like other heavily-preyed-upon species, rabbits have an extremely high reproductive rate, which maintains adequate populations despite heavy predation pressure.



DIET

Cottontail rabbits are herbivorous, with dietary preferences varying seasonally based on plant availability and nutritional requirements. **Spring and Summer Diet** During growing seasons, cottontails consume fresh grasses, clovers, dandelions, plantain, and other herbaceous plants. They prefer young, tender shoots and leaves that provide high protein content necessary for growth and reproduction. **Fall and Winter Diet** As temperatures drop and herbaceous plants become scarce, cottontails shift to woody browse including bark, twigs, and buds from trees and shrubs. Preferred species include apple, sumac, dogwood, elderberry, and various oak species. **Feeding Behavior** Cottontails practice coprophagy - the consumption of their own soft feces. This behavior allows them to extract maximum nutrition from plant material by passing it through their digestive system twice, similar to ruminant animals. **Crop Damage Potential** They can cause serious damage to fields, flowering shrubs and orchards. In agricultural areas, cottontails may consume crops including lettuce, beans, peas, carrots, and various garden vegetables, leading to conflicts with human interests. **Water Requirements** Cottontails obtain most of their water from vegetation and can survive extended periods without drinking if succulent plants are available. During dry periods, they may travel to water sources or consume dew from plant surfaces.

DEFENSIVE MECHANISMS

Cottontail rabbits have evolved numerous defensive strategies to survive intense predation pressure from multiple predator species. **Physical Adaptations** Speed and Agility: Powerful hind leg muscles enable rapid acceleration and sustained speeds up to 18mph. Their zigzag running pattern makes them difficult targets for pursuing predators. **Sensory Systems** Large eyes positioned on the sides of their head provide nearly 360-degree vision. Oversized ears detect sounds from multiple directions and can rotate independently. **Camouflage** Cryptic coloration blends effectively with natural vegetation, making motionless rabbits nearly invisible to predators.

BEHAVIOR DEFENSES

Freezing Behavior When predators are detected, cottontails remain absolutely motionless, relying on camouflage until the threat passes or approaches too closely. **Escape Routes** Established travel corridors through dense vegetation provide predetermined escape paths during emergency situations. **Timing Strategies** Crepuscular activity patterns minimize exposure to many diurnal and nocturnal predators.

REPRODUCTIVE DEFENSES



High Reproductive Rate Multiple litters per season with large litter sizes compensate for high mortality rates. **Nest Concealment** Shallow ground nests are carefully hidden in dense grass and lined with fur to minimize detection. **Parental Behavior** Female cottontails visit nests only briefly for nursing, reducing predator attraction to nest sites. **Competitive Displacement** Due to their high birth rate, Eastern cottontails can move in aggressively and take over areas, causing other species to decline, as in the case of the New England cottontail. This competitive advantage serves as an indirect defensive mechanism through population dominance.

MANAGEMENT CONSIDERATIONS

Effective cottontail management requires understanding their behavior, biology, and the specific circumstances leading to human-wildlife conflicts. Management strategies should emphasize prevention, timing, habitat modification, and when necessary, professional removal services.

SCIENTIFIC REFERENCES

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This document represents current scientific understanding of cottontail biology and behavior as of 2025. Information should be used in conjunction with local wildlife



management guidelines and regulations.

