

# WILDLIFE IN CONNECTICUT

## WILDLIFE FACT SHEET

### Cottontail Rabbits

#### New England Cottontail

*Sylvilagus transitionalis*

#### Eastern Cottontail

*Sylvilagus floridanus*

#### Background

The eastern cottontail was introduced into New England in the late 1800s and early 1900s and has been expanding its range ever since. The New England cottontail is the only rabbit native to Connecticut. In the mid-1930s, New England cottontails were still considered abundant and more numerous than the eastern cottontail. However, as agricultural areas reverted to forest and these forests matured, populations of both species were reduced. The eastern cottontail is now the predominant species.

The DEEP has been conducting research on New England and eastern cottontails since 2000. Studies have been implemented to determine the distribution of each species, evaluate survival and causes of mortality, estimate home range size, and assess potential competition between the two species. The DEEP Wildlife Division also has assisted in the development of a captive breeding program designed to propagate New England cottontails in captivity for release in states throughout their range to augment or expand existing populations. Habitat enhancement projects have been implemented on several Connecticut state forests and wildlife management areas to expand existing populations.

#### Range

The New England cottontail occurs in New England west to the Hudson River. The eastern cottontail occurs in the eastern United States and southern Canada south to eastern Mexico and into Central America. Another population is in Texas, New Mexico, and Arizona. The eastern cottontail is more abundant than the New England cottontail. Also, its range is expanding, while the New England cottontail's range is diminishing.

#### Description

The cottontail rabbit is somewhat stocky, with large hind feet, long ears, and a short, fluffy tail that resembles a cotton ball. Its long, coarse coat varies in color from reddish-brown to grayish-brown. The underparts are white. The New England cottontail weighs between 1.64 and 2.94 pounds and measures from 14.2 to 18.8 inches. The



eastern cottontail weighs between 1.8 and 2.95 pounds and measures from 14.8 to 18 inches.

New England and eastern cottontails are almost identical in appearance, except for a slight variation in color. About half of the eastern cottontail population shows a white, star-like shape on the forehead, while New England cottontails do not exhibit this trait. A comparison of skull characteristics or DNA analysis are the most reliable ways to distinguish the two species.

#### Habitat and Diet

Eastern cottontails tend to use open fields, meadows, yards, and other grassy areas. New England cottontails prefer early successional forests, often called thickets, with thick and tangled vegetation. These young forests are generally less than 25 years old. Once large trees grow in a stand, the shrub layer tends to become thin, creating habitat that the New England cottontail no longer finds suitable.

In summer, cottontails feed almost entirely on tender grasses and herbs. Crops, such as peas, beans, and lettuce, are also eaten. In winter, bark, twigs, and buds of shrubs and young trees are eaten. Rabbits will also re-ingest their own fecal pellets, increasing their level of vitamins and minerals.

#### Life History

Breeding occurs from March through early fall. 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. The gestation period is about 28 days. Cottontails usually have 2 to 4 litters per year with about 3 to 8 young per litter. Young rabbits are born blind, naked, and helpless but grow rapidly, leaving the nest after only 2 to 3 weeks. They are weaned and totally independent at 4 to 5 weeks. On average, 15% of the young will survive their first year. Adults are usually solitary by nature, except when a female is caring for its young.

### ***Interesting Facts***

Cottontail rabbits are active all year long, foraging mainly at dusk or night. During the day, they remain concealed in dense brush, protected from predators and harsh weather. In times of extreme weather conditions or to escape predators, rabbits will readily use an abandoned woodchuck burrow, stone walls, brush piles, or other structures for protection. A rabbit's home range varies greatly with the quality of habitat, but generally averages 9 acres. Males have larger home ranges than females.

Cottontails have keen eyesight and hearing. When danger is sensed, a rabbit will usually freeze in place until danger has passed, but it will flush readily if approached too closely. Rabbits normally move slowly in short hops or jumps, but when frightened they can achieve speeds up to 18 miles per hour over a short distance. They often zig-zag to confuse a pursuing predator. Although they do not take to the water often, rabbits are good swimmers.

Rabbits will thump the ground with their hind feet regularly, probably as a means of communication. When playing, breeding, or fighting, they often make low purring, growling, or grunting sounds. If captured by a predator, the animal may produce a loud, shrill scream.

Because of its high productivity rate, the cottontail rabbit is an important link in the food chain and a principal prey item for many species. Depending on its availability, the cottontail can be considered a buffer prey species, meaning if rabbit numbers are high, predators will concentrate on them, thus reducing the pressure on other prey species.

The cottontail rabbit is a popular game species throughout its range. The regular hunting season in Connecticut occurs from fall into winter. Consult the current Connecticut Hunting and Trapping Guide for specific season dates and information. The guide is available at town halls, DEEP offices, and on the DEEP website ([www.ct.gov/deep/hunting](http://www.ct.gov/deep/hunting)).

### ***Conservation Concerns – New England Cottontail***

A petition was submitted to the U.S. Fish and Wildlife Service (USFWS) in August 2000 to list the New England cottontail as a threatened or endangered species. The USFWS designated the New England cottontail as a candidate for threatened or endangered status in September 2006.

Historically, New England cottontails were distributed statewide in Connecticut, but limited research over the past 50 years has indicated that populations have declined in abundance and distribution in the state and throughout

New England. Biologists believe the reduced extent of thicket habitat is the primary reason for the decline in numbers and range of New England cottontails. Prior to European settlement, New England cottontails were probably found along river valleys where floods and beavers created the disturbances needed to generate its preferred habitat. Forest insect outbreaks, large storms like hurricanes and ice storms, and wild fire also created disturbances in the forest that promoted thicket growth. During colonial times, much of the New England forest was cleared for agriculture and then subsequently abandoned during the early 1900s. This abandoned farmland allowed for a great deal of early successional habitats to develop. Today, these habitats are aging while others have been developed and are no longer suitable for New England cottontails.

The introduction of exotic invasive species, such as multiflora rose, honeysuckle bush, and autumn olive, in the last century has changed the type of habitat available to New England cottontails. These plants form the major component of many patches where cottontails can be found. It may be that stands dominated by non-native species do not provide rabbits with the food resources that native plant species do.

A research project was initiated in Connecticut in October 2000 by the Wildlife Division to document the historic and current distribution of New England and eastern cottontail rabbits. The project involves a statewide collection effort to obtain distribution information of cottontails throughout the state. Four common methods are used to collect data on cottontail distribution: hunter harvest, live trapping, and collection of roadkills and fecal pellets. Dead cottontail specimens are frozen to preserve tissue for future DNA analysis if needed for species identification. An ear sample is collected from all live-trapped rabbits for DNA analysis. Specimens are identified as eastern or New England cottontails by using skull morphology or DNA analysis. To confirm species identification, all intact skulls are skinned and skull morphology is examined.

Since October 2000, cottontails have been collected from 115 (67%) of Connecticut's 169 towns. New England cottontails were found in 26 of the 115 (23%) towns and eastern cottontails were found in 108 of the 115 (94%) towns. Twelve additional towns were documented as having New England cottontails by the University of New Hampshire between 2003 and 2006 through fecal DNA analysis.

The New England cottontail continues to be the subject of research and habitat management in Connecticut, New York, and the other New England states. Halting the decline of scrub and brushland habitat is paramount, as is identifying potential habitat free of competing eastern cottontails to which New England cottontails could be restored. Working together, state and federal agencies may help improve the chances of survival for the New England cottontail.

***The U.S. Fish and Wildlife Service provided some of the information used to compile this fact sheet ([www.fws.gov](http://www.fws.gov)).***



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