



New England Cottontail *Sylvilagus transitionalis*

PHOTO BY ANNE BROWN

BY MARCI CAPLIS AND ANTHONY TUR

Why would a rabbit, the epitome of prolific breeding, be considered for protection under the Endangered Species Act? As early as 1960, the New England cottontail was found east of the Hudson River in New York, throughout southern New England, north to southern Vermont, New Hampshire, and into southern Maine. Today, this rabbit's range has shrunk by more than 75 percent. Its numbers are so greatly diminished that it can no longer be found in Vermont and has been reduced to only five smaller populations throughout its historic range.

The New England cottontail prefers early successional forests that are often described as thickets; the thicker and more tangled the vegetation, the better. These young forests are generally less than 25 years old. Once larger trees grow in a stand, the shrub layer tends to thin, creating a situation that the New England

cottontail no longer finds suitable.

Active at dawn and at dusk or night, the New England cottontail feeds on grasses and plant leaves in spring and summer and eats bark and twigs in winter. Home ranges vary from one-half to eight acres, with adult males having larger home ranges than females. New England cottontails on patches of habitat larger than 12 acres are healthier than those on patches less than seven acres. Presumably, rabbits on small patches of habitat deplete their food supply earlier in winter and have to eat lower quality food, or may need to search for food in areas where there is more risk of being killed by a predator.

The reduction in numbers and range of the New England cottontail can be attributed to several factors, however, the primary reason is believed to be a reduction in the extent of thicket habitat. Prior

to European settlement, the New England cottontail was probably found along river valleys where floods and beavers created the disturbances needed to generate its preferred habitat. During colonial times, much of the New England forest was cleared for agriculture and then subsequently abandoned. This abandonment of farmland allowed for a great deal of early successional habitats to develop and the New England cottontail probably benefited greatly. Today, these habitats are aging while others have been developed and are no longer suitable for the New England cottontail.

The introduction of invasive exotic species, such as multiflora rose, honeysuckle bush and autumn olive, has changed the type of habitat available to the New England cottontail. While these plants form the major component of many patches where the New England

cottontail can be found, it may be that the stands dominated by non-native species don't provide rabbits with the food resources that native plant species do.

The white-tailed deer is found in extremely high densities throughout the range of the New England cottontail. Deer eat many of the same plants as the New England cottontail and affect the structure and density of many understory plants that provide thicket habitat.

In the 1920s and 1930s, hunting clubs introduced another species of rabbit, the eastern cottontail, into New England. Although the eastern cottontail is bigger than the New England cottontail, one species does not appear physically dominant over the other. Rather, the eastern cottontail appears able to thrive in a greater variety of habitats through its ability to detect predators sooner than New England cottontails can.

It is nearly impossible to distinguish a New England cottontail from an eastern cottontail by catching a quick glimpse of them in the field. The minor differences of ear length, body mass, and presence or absence of a black spot between the ears and a black line on the front of each ear are subtle enough to be missed and are not 100 percent accurate. Scientists can now also use DNA analysis of fecal pellets. Since rabbits drop fecal material all around their territory, the DNA extracted from pellets collected throughout the region can provide a picture of where the New England cottontail is found.

The New England cottontail is the subject of research and habitat management in New York and in the New England states. Halting the decline of scrub and brushland habitat is paramount, as is identifying potential habitat free of the competing eastern cottontail to which

New England cottontails could be restored. The U.S. Fish and Wildlife Service shares this concern for the future of New England's only native cottontail. Working together, states and federal agencies may help ensure the future survival of the New England cottontail.

The next time your travels on the Appalachian Trail take you through the Taconics in New York, northwestern Connecticut or the Berkshires in Massachusetts, be on the lookout. If a cottontail rabbit should happen to dart across your path, you may have observed an increasingly rare site, the New England cottontail.

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