

Eastern Cottontail Rabbit

Food

Rabbits browse a variety of plant leaves, buds, and stems during the growing season. During winter, they feed on bark, dried stems, and plants such as clovers, small grain, or weeds and grasses that remain green.

Cover

Highest densities occur in extensive areas dominated by briar tangles, shrubby areas, and young forest stands.

Native grasses and low-growing weeds and wildflowers that provide dense protective cover, both overhead cover and horizontal cover, often support high rabbit populations.



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Reproduction

Young are born from March to September. Females give birth to three to eight young with an average of four young per litter. Young rabbits are independent in 18 to 21 days. One pair of rabbits has the potential to increase to 25 individuals over the long reproductive season.

Home Range and Survival

Home range is usually about 10 acres. On average, rabbits survive less than one year.

North Carolina has three species of rabbits: Eastern cottontail, Appalachian cottontail, and marsh rabbit. The Eastern cottontail occurs statewide. The marsh rabbit is found in wetlands on the Coastal Plain and the eastern fringe of the Piedmont. The range of the Appalachian cottontail is restricted to higher elevations in the mountains of western North Carolina. Management activities directed toward improving rabbit populations are similar for each of the three species.

Rabbits are common statewide, but highest densities are achieved in extensive areas of uniform escape cover such as young pine plantations, abandoned farmland, or native grass fields. Rabbits thrive in impenetrable cover of at least one-quarter acre in size that has not been exploited by predators or where mammal predator densities are low (usually resulting from disease outbreaks such as distemper and rabies).

Rabbits have small home ranges and are incredibly productive. Unlike quail, they can be successfully managed on a few acres of land. To be successful, the rabbit manager must focus on increasing survival. Rabbit predators include snakes, house cats, dogs, raptors, foxes, bobcats, crows, and coyotes. Controlling populations of the many predators is beyond the means of most managers. Fortunately, manipulating habitat to manage predation is a productive alternative to reduce losses to predators.

Habitat management for rabbits should focus on maximizing screening cover at ground level, providing dense escape cover to discourage mammalian predators, and providing overhead screening with a minimum of perch sites to protect rabbits from aerial predators. Many of the techniques discussed earlier under grasslands, croplands, and idle-area management will provide excellent rabbit habitat. Some other specific techniques are discussed below.

Brush piles bring the quickest response of all management tools. Rabbits often take over a brush pile the night after construction. Cutting lone trees and snags that serve as raptor perches will discourage predation from above and provide materials to develop a brush pile. Place brush piles close to other cover such as briars, native grasses, fencerows, or



dense young woodlands. Don't burn brush piles left from clearing; instead, windrow them in the center of the field for cover. (See Edge Feathering and Woody Cover Establishment on page 64.)

Create or encourage impenetrable islands of woody or briar cover surrounded by native grasses. This can be accomplished when clearing land by loosely piling brush or identifying areas of blackberry or greenbrier and planting native grasses adjacent to them. Windrows should be considered temporary as they melt away after a few years. Piling brush is an inexpensive way to develop briar, vine and shrub cover. Birds perching on the brush pile will deposit seeds of many desirable cover plants.

Stands of tall-growing native warm-season grasses typically support good rabbit populations. Switchgrass or Atlantic coastal panic grass are good choices, if managing specifically for rabbits, because they provide more dense overhead cover. Properly managed native warm-season grass pastures and hay fields can provide excellent rabbit habitat. Adjacent fencerows should be protected from grazing, and the larger trees along fencerows should be killed and felled. The resulting dense growth will provide good rabbit cover.

Converting areas currently growing fescue, Bahia grass, or Bermuda grass to rabbit habitat requires the use of herbicides. (See the herbicide discussion on page 65.) Likewise, herbicides can be used to create or maintain habitat where trees are shading low-growing cover. Herbicides with the active ingredient imazapic will selectively remove many species of hardwoods and encourage blackberry.

Planting rabbit foods should be considered secondary to providing cover. For suggestions on food plots for rabbits, see discussion of rabbits under Food Plots, page 63, and *Growing and Managing Successful Food Plots for Wildlife in the Mid-South* (University of Tennessee Extension).

We can do too good of a job with habitat management. Extensive areas of great rabbit habitat make it difficult for hunters to harvest rabbits, so cutting shooting lanes just prior to hunting can facilitate harvest by hunters. However, remember that the lanes will allow more loss to predators.

Gray Squirrel

Food

Squirrels feed on pine seeds, acorns, hickory nuts, beech nuts, berries and fruits, buds, fungi, and some insects.

Cover

Squirrels take refuge in large trees. Dens and nests are located in hollow trees and in nests constructed of leaves.

Reproduction

Two peaks of reproduction result in most litters being born from early February-April or during July-August. Litters average from two to four, and young are independent at 12 to 14 weeks.

Home Range and Survival

Gray squirrel home ranges average about four acres with those of males slightly larger than females. Average life expectancy is dependent upon mast abundance, and annual survival of young can range from a low of five percent, following a mast failure, to a high of around 30 percent when food is abundant.

The gray squirrel is the most common and widespread squirrel in North Carolina. However, we have Eastern fox squirrels on the Coastal Plain and in the southern Piedmont and midwestern fox squirrels in several northwestern mountain counties. Fox squirrels differ from gray squirrels in that they seem to prosper in more open forests



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