



**Common Name:** APPALACHIAN COTTONTAIL

**Scientific Name:** *Sylvilagus obscurus* Chapman, Cramer, Deppenaar, and Robinson

**Other Commonly Used Names:** wood rabbit, New England cottontail, Allegheny cottontail

**Previously Used Names:** *Sylvilagus transitionalis* Bangs

**Family:** Leporidae

**Rarity Ranks:** G4/S1S2

**State Legal Status:** Rare

**Federal Legal Status:** none

**Description:** The Appalachian cottontail is very similar in appearance to the familiar eastern cottontail (*Sylvilagus floridanus*) but is slightly smaller with relatively short, round ears. The fur on the head and back is pinkish-buff to ochreous-buff overlaid with a distinct black wash of

guard hairs and a black spot between the black-edged ears. The sides are paler buff with less of a black wash. The belly is whitish to light gray and the nape is rusty. Appalachian cottontails are about 385 - 430 mm (15 - 17 inches) long with ears up to 60mm (2½ inches) long. They weigh 0.8 - 1.3 kg (1¾ - 2¾ pounds).

**Similar Species:** This species is essentially identical in appearance to the New England cottontail (*Sylvilagus transitionalis*), from which it was recently separated taxonomically. The easiest way to distinguish the two is by range. The New England cottontail is found east of the Hudson River in New England; the Appalachian cottontail occurs west and south of the Hudson River. As already noted, New England cottontail is also similar in appearance to the eastern cottontail. However, eastern cottontail has less of a pinkish appearance and less black streaking. Also, its ears are longer, more pointed, and edged in buff or white. There is also usually a white spot on the forehead. Examination of skull characteristics is usually necessary to distinguish positively between these two rabbits. The skull of Appalachian cottontail displays jagged, irregular posterior margins on the nasal bones, and the post-orbital processes are slender and tapered, often touching the skull over their entire length. Also, the auditory bullae are smaller and lack bony spurs. In contrast, eastern cottontail has more smooth posterior nasal margins, the post-orbital process is more broad and flat, and the auditory bullae are larger and have spurs.

**Habitat:** The Appalachian cottontail is known to frequent brushy areas in high elevation boreal forests and might reach highest densities in 5- to 10-year-old clearcuts. In Georgia, Appalachian cottontails have been found only at elevations greater than 914 m (3,000 feet) on balds or in boreal forest habitats with heavy mountain laurel and blueberry shrub cover in the mountains of Rabun, Union, Towns, and Fannin counties.

**Diet:** Grasses, clovers, and other herbaceous plants; twigs, buds, seeds, fruit, and conifer needles.

**Life History:** Appalachian cottontails produce 3 - 4 litters of 3 - 8 young (5 average) from late winter until late summer; the gestation period is 28 days. The young leave the fur-lined nest when they are around 2 weeks old. These rabbits are primarily nocturnal and rarely venture far from dense cover. The home range varies from about 0.2- 0.8 hectare (0.5 - 2 acres), sometimes in a linear arrangement to fit available habitat. Predators that take rabbits include hawks, owls, foxes, and bobcats.

**Survey Recommendations:** Trapping in potentially suitable habitat followed by careful examination of specimens is the best way to confirm the presence of this species.

**Range:** This woodland rabbit lives in small, scattered populations ranging from New York's Hudson River area south throughout the Appalachian Mountains in the eastern U.S., including the highlands of Georgia, Alabama, and South Carolina. In Alabama and South Carolina, Appalachian cottontail has been found at elevations as low as 305 m (1,000 ft), and in North Carolina at 427 m (1,400 ft). Most likely, the Appalachian cottontail expanded its range southward during the last period of glaciation, and scattered refugial populations were left behind as the climate warmed, and the glaciers and associated boreal vegetation began retreating about 10,000 years ago. The Alabama population appears to be particularly disjunct. A very similar

woodland rabbit, the New England cottontail, occurs in boreal habitats east of the Hudson River. In fact, woodland cottontails from Alabama to Maine were long considered to belong to a single species, the New England cottontail. In 1992, due to differences in skull measurements and chromosome count, Appalachian cottontail was separated into a distinct species. Original geographic separation of the two species was probably glacier-related. However, more recent analysis of mitochondrial DNA does not support the separation into two species, so the taxonomy is in question.

**Threats:** Appalachian cottontails are naturally rare in Georgia because the North Georgia mountains are at the extreme southern end of the species' range, and because populations are apparently isolated in fragments of suitable high elevation habitat. Although population declines have been noted in states to the north, little is known about historic and present Appalachian cottontail population levels in Georgia because they are rare, secretive, and difficult to identify positively. Habitat disturbance has probably been the major factor resulting in the decline of this species in most of its range. Wooded areas have been replaced and encroached upon by fields, roadways, and residential development which encourages the ubiquitous and adaptable eastern cottontail to expand its range and usurp areas formerly occupied by Appalachian cottontails.

**Georgia Conservation Status:** In Georgia, most habitat is on the Chattahoochee National Forest.

**Conservation and Management Recommendations:** Since little is known about this species in Georgia, needed conservation measures are difficult to address. Maintaining suitable habitat and minimizing avenues whereby eastern cottontails can encroach and compete are probably the most important measures that can be taken. Additionally, it is possible that greater human inhabitation of Appalachian cottontail habitat could lead to increased predation from feral house cats. Rabbit hunting should not be a significant source of mortality since this sport is typically practiced in habitat more suitable for eastern cottontails.

#### **Selected References:**

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J. Ozier, August 2008: Original Account

K. Owers, November 2009: Updated status and ranks, added picture