



# Fox Squirrel

## North Carolina Wildlife Profiles



### Fox Squirrel

#### *Sciurus niger*

The largest and most colorful tree squirrel in North Carolina, the fox squirrel lives primarily in mature longleaf pine and open pine-oak forests in the Sandhills and southern Coastal Plain. The fox squirrel is about twice as large as the gray squirrel, and individuals exhibit a variety of color phases and patterns ranging from gray to black to red.

#### Description

Southeastern fox squirrels occur in a variety of color phases. Most in North Carolina are grayish, with various patches of black on the head and feet and white patches on the nose, paws and ear tips. Some animals are almost totally black with dark gray patches, and others are reddish or rust colored. Rare specimens from western North Carolina are generally red and probably belong to a midwestern race of fox squirrels.

Adults are much larger than the more common gray squirrel and the western fox squirrels found in the Midwest. They range in length from 20 to 26 in. and weigh from 1½ to 2½ lbs.

#### History and Status

Fox squirrels were once more widely distributed in North Carolina than they are today. Their preferred habitat, longleaf pine forests, was once common in the southern Coastal Plain but has mostly disappeared from the landscape. Timber management practices favor loblolly pine regeneration and are often based on clearcutting, 40-year rotations, and suppression of natural fires, which restrict the number of open old-growth longleaf pine forests.

Because fox squirrels are solitary animals, their population densities are generally low even in areas where they are considered common. Large areas of habitat are needed to support viable populations. Stable populations of fox squirrels still exist in southeastern North Carolina but are often located in isolated pockets of habitat.

#### Habitat and Habits

Fox squirrels in North Carolina inhabit mostly open, mature pine-oak forests. Food habits are highly variable according to season. The most common foods are seeds from green and mature pinecones, acorns, hickory nuts, buds and berries from a variety of plants, fungi, and insects.

Fox squirrels are diurnal and are generally active for 8 to 14 hours a day. They are not territorial but are solitary and asocial except when breeding or rearing young. Tree cavity nests are very important for rearing young and providing

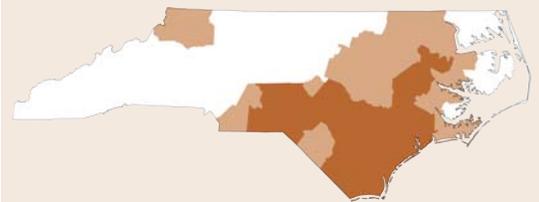
*The fox squirrel is the largest and most colorful squirrel in North Carolina.*



#### Range and Distribution

The fox squirrel is a native of North America that occurs in the eastern United States, except for New England. There are two distinct populations: western and southeastern. Western fox squirrels range from the Ohio Valley to Oklahoma. Southeastern fox squirrels range from Texas to Maryland and south to Florida.

#### Range Map



In North Carolina, the fox squirrel is found in moderate numbers in the areas darkly shaded and in lower numbers in the lightly shaded areas.

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protection from winter weather. These nests are usually found in large old hardwood trees, ancient flattop longleaf pines, or dead standing trees, and are often located on wetland edges next to mature pine-oak forests. Leaf nests are often constructed during warmer months in the limbs of oak or pine trees or occasionally on the ground.

The large size of the southeastern fox squirrel is thought to be related in several ways to the open forests of longleaf pine. The trees in these forests are widely spaced, requiring the squirrel to travel overland to forage rather than from tree to tree like flying squirrels or gray squirrels. Also, the green longleaf pinecones are much larger than those from other southeastern pines, and only the fox squirrel has the size and strength to manipulate the cone and remove the nutritious seeds that form an important part of the animal's diet.

There are no natural predators that regularly capture adult fox squirrels, but individuals are occasionally preyed upon by bobcats, foxes and great horned owls. Young squirrels in the nest are vulnerable to snakes, raccoons and opossums.

## People Interactions

Fox squirrels are active during daylight hours and are occasionally seen by people. They are considered a trophy by hunters and are often mounted. They occasionally raid grain or cornfields for food and may cause some minor damage to crops.

The fox squirrel is listed as a game species in North Carolina. Where they do occur in the state, their populations are healthy enough to withstand hunting pressure. Fox squirrels are considered vulnerable in some areas because there are locations with good habitat for this species, yet there are no fox squirrels there. The likely reason is that habitat has been drastically fragmented and it has been difficult for fox squirrels to disperse to the better habitat. The current range is smaller than the historical range.



## Wild Facts

### Classification

Class: Mammalia

Order: Rodentia

### Average Size

Length: 20-26 in.

Weight: 1 ½ to 2 ½ lbs.

### Food

Pine seeds, acorns, hickory nuts, buds, berries, fungi and some insects.

### Breeding

Fox squirrels generally mate in midwinter. Females breed when they are 1 year old, and occasionally, in years when food availability is high; older females may breed again in summer and produce a second litter.

### Young

Litters of 1 to 5 young are usually born in February or March after a gestation period of 44 days. Fox squirrels are blind and hairless at birth and open their eyes after 4 to 5 weeks. Young are weaned at 8 to 9 weeks of age and may remain with the adult for another month.

### Life Expectancy

Fox squirrels that survive to become adults live an average of 3 to 4 years. Maximum life expectancy in the wild is generally 6 to 7 years, but individuals have been known to live as long as 12 years.

## NCWRC Interaction: How You Can Help

Fox squirrels prefer habitats composed of mature, open pine-oak and longleaf pine forests. But certain management practices, such as large-scale replacement of longleaf pine with loblolly pine, shortened stand rotation, and fire-suppression, coupled with suburban and urban development, have led to a reduction and fragmentation of preferred habitat.

Homeowners and developers can create habitat for fox squirrels by creating areas on their property that encourage the growth and/or maintenance of mature hardwoods and longleaf pines. Management around streams can provide both habitat and travel corridors for fox squirrels, which would aid in reducing fragmentation between preferred habitats.



## Q&A

### 1. Why have the numbers of fox squirrels declined in North Carolina?

These squirrels were once more widely distributed in North Carolina than they are today. Their preferred habitat—longleaf pine forests—was once common in the southern Coastal Plain, but has mostly disappeared from the landscape. That's because timber-management practices favor loblolly pine regeneration and are often based on clear cutting, 40-year rotations and suppression of natural fires. These practices restrict the number of open old-growth longleaf pine forests.

### 2. Where do fox squirrels build their nests?

Tree cavity nests are very important for rearing young and providing protection from winter weather. These nests are usually found in large old hardwood trees, ancient flattop longleaf pines, or dead standing trees, and are often located on wetland edges next to mature pine-oak forests. Squirrels construct leaf nests during warmer months in the limbs of oak or pine trees or occasionally on the ground.

### 3. Describe the diet and hunting activities of the fox squirrel?

The food habits of the fox squirrel are highly variable according to season. Their diet consists of seeds from green and mature pinecones, acorns, hickory nuts, buds and berries from a variety of plants, fungi and insects. These squirrels are diurnal and generally active from 8 to 14 hours a day.

## Links

To see a fox squirrel close up, go to: [www.scarysquirrel.org/special/movies/golfattack1/](http://www.scarysquirrel.org/special/movies/golfattack1/)

## References

- Lee, David S., John B. Funderburg Jr. and Mary K. Clark. *A Distributional Survey of North Carolina Mammals* (Raleigh, N.C., 1982).  
Moncrief, Nancy D., et al., eds. *Proceedings of the Second Symposium on Southeastern Fox Squirrels* (Virginia Museum of Natural History Special Publication No. 1).  
Webster, William David, et al. *Mammals of the Carolinas, Virginia and Maryland* (University of North Carolina Press, 1985).  
Weigl, Peter D., et al. *The Ecology of the Fox Squirrel (Sciurus niger) in North Carolina* (Bulletin No. 24, Tall Timbers Research Station, Tallahassee, Fla.).

## Credits

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