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FOX SQUIRREL (*Scuirus niger*)

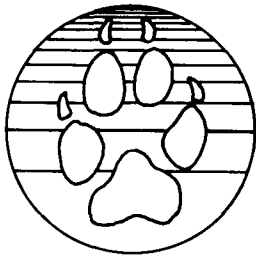
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NEBRASKA WILDLIFE

Nebraska Game and Parks Commission



FOX SQUIRREL (*Sciurus niger*)

Description: An adult fox squirrel is 18-27 inches long and weighs between 1.5 and 2.5 pounds. The back or upper surface of its body is a grizzled rusty brown and the lower surface is usually a pale to bright reddish color, but may be yellowish brown or even whitish. Its bushy tail is darker in the center, fading to a more reddish color toward the hair tips. Its ears are small and rounded. The black squirrel that people occasionally observe near their homes is a color phase of the fox squirrel that has become established in several Nebraska towns, and elsewhere in the Midwest.

Although Nebraskans often mistakenly call the fox squirrel a "red squirrel," perhaps to differentiate it from the gray squirrel, the true red squirrel (*Tamiasciurus hudsonicus*) does not live in Nebraska and is a much smaller and redder squirrel that inhabits coniferous forests.

Distribution and abundance: The fox squirrel is a tree squirrel that is found primarily in eastern woodlots and forest edges. Its natural boundaries include the mid-Atlantic states, Canada, eastern Montana, Wyoming and Colorado, and the western third of Texas to the Mexico border. It has been introduced in many western states and Great Britain, as well as South Africa and Australia.

In Nebraska, the fox squirrel is found in small woodlots, streamside habitat and shelterbelts, especially those near crop fields. Therefore, it occurs everywhere in the state except in the treeless grasslands of the Sandhills, Panhandle and southwest. In Nebraska, the gray squirrel (*Sciurus carolinensis*) is found only in woods that have a dense leaf canopy along the Missouri River bluffs in the southeastern portion of the state, but it is abundant in the eastern United States.

Habitat and home: Deciduous or hardwood trees are essential to the fox squirrel. It prefers the open canopy of shelterbelts, woodlots and trees, and along the banks of streams, lakes and ponds, and does not live in dense forests of closed canopy like the gray squirrel. Although acorns and hickory nuts are among the fox squirrel's preferred food items, many woodlots where it lives in Nebraska do not have these kinds of trees. If acorns and hickory nuts aren't available, a fox squirrel will readily consume the fruits of other trees or nearby crops.

A fox squirrel will use a tree cavity as a den, but if a cavity is not available it will readily build a leaf nest. Once the leaves have fallen in autumn, squirrel nests can easily be seen in the tops of tall trees, advertising the presence of fox squirrels in backyards, shelterbelts or in trees growing along streams. An individual squirrel may have a centrally located den tree and several leaf nests located throughout its home range. Having a number of nests available aids in its mobility while it searches throughout an area for food. In winter, several squirrels may share a single den.

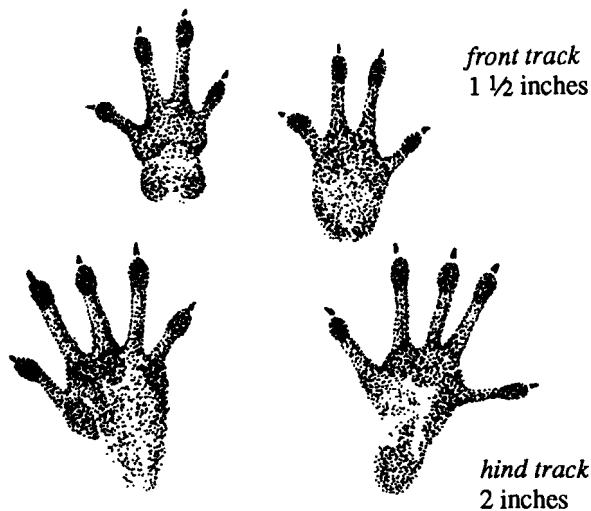
A squirrel is an active animal. During spring and summer the home range of an adult male is about 18.5 acres, the female's is about 9 acres, the yearling's is about 37.5 acres and the juvenile squirrel's is about 7.5 acres. Fall squirrel populations average about one squirrel per 10 or more acres of actual squirrel habitat.

Habits: A fox squirrel is strictly diurnal, or active only during daylight hours, and is active throughout the year. It is most active in September and October when it is busy burying food for the winter and subadult squirrels leave the family unit.

When a number of squirrels live in a single area, a dominance hierarchy develops. Dominance is evident in breeding, as well as at concentrated food sources and den trees. The young are always subordinate to older squirrels and males are usually dominant over females.

The best known sound the fox squirrel makes is an alarm call, a series of barks it makes while it flicks its tail. When frightened, a fox squirrel seeks security in a tree and typically

tries to keep the tree trunk between itself and the enemy, flattens out along a limb, or ducks quickly into a convenient hole in the tree.



Food: Although mast, the fruit or nuts of trees, is preferred, the fox squirrel has adapted to using other types of food. It prefers the nuts of oak, hickory and walnut trees in fall and through the winter, but if these foods are not available, it will use osage-orange "hedge apples" and the seeds of honey locust, Kentucky coffeetree, beech and elm. In the spring, it will eat the buds of maple, elm and willow.

Crops such as corn and soybeans are also eaten in the fall. Corn is buried in the same manner as acorns and other nuts for use during winter months. To cache these foods the squirrel digs a small hole, puts in one seed or nut and then covers it again. The squirrel locates these stores in winter by smell, even through snow, and one squirrel may raid the stores of other squirrels using the same area. Fox squirrels also occasionally eat insects, bird eggs and small birds.

Reproduction: Female squirrels are often chased by several males during the breeding season. The chase is not frantic but more leisurely, with the female stopping periodically to feed or rest and to drive the males away unless she is receptive. Only the dominant male will mate with females.

An adult fox squirrel breeds twice a year — in December or January and between April and June with a gestation period of 45 days. The average litter size is three young, although up to six can be produced, depending on the availability of food and the season. A fox squirrel becomes sexually mature at around 10 months of age, but usually produces only one litter its first year. Young squirrels are born without hair and are blind and deaf. The young are weaned when they are 10 weeks old, but are still dependent on their parents for another two to three weeks.

Mortality: Mortality is high in young squirrels perhaps because of their inexperience with the causes of mortality. An adult normally lives four to seven years but there have been rare reports of older squirrels, such as of one 12½ - year-old pregnant female. Both birds and mammal predators prey upon fox squirrels, but this appears to be a minor form of mortality. Population declines are more likely to occur because of a combination of inadequate food supplies, severe winter weather and mange infestations.

Mange mites live in the squirrel's hair follicles and cause scabbing and hair loss which starts on its chest and shoulders, and may spread over its entire body. Scabs form and the skin becomes thick and wrinkled. Spontaneous recovery can occur with complete regrowth of hair, but if recovery does not occur, the hair loss can cause the squirrel to die due to exposure, predation, or secondary infections.

Importance: The squirrel is a popular game species, particularly in the eastern part of the country. In the late 1980s about 16,000 Nebraska hunters harvested an average of 93,000 squirrels each year. The squirrel hunting season is the first to open in the fall. The fox squirrel is active and can be hunted throughout the day, but the best time to hunt is in the early morning when it is most active. The hunter sits at the base of a tree or along a fence line in an area where he has found fresh squirrel sign such as fresh acorn or walnut cuttings. After he walks into the woods and finds a spot to sit, he may have to wait 20 minutes or so for the squirrels to become active again. Some hunters prefer to "still hunt" or walk very slowly and quietly through a wooded area.

Management: Managing land to attract and provide for squirrels includes planting nut trees, which may not bear fruit for several years, and may not become good leaf nest trees for as long as 30 to 40 years. It may take as long as 50 or 60 years for a tree to become a good den tree. If none of the trees in an area are good mast producers, rows of corn or soybeans should be left unharvested nearby to provide food during winter months.

Squirrel nest box



Large old trees have the potential for use as den trees and should be left standing for this purpose. If all the trees in a particular area are too young, other methods may be used to provide dens, including building nest boxes and putting them into the trees. Large trees can be made into den trees by girdling or by damaging a limb high in the tree. This part of the tree will rot and will be worked by woodpeckers and other species that want to get at the insects in the softened wood. Eventually this area becomes large enough to hold a squirrel and the squirrel will use it as a den.

