Red Fox

*Vulpes vulpes*

Foxes have always intrigued man. Storytellers and writers in almost every culture and in every period of history have delighted in depicting foxes as cunning, intelligent and shrewd. In the imaginations of many, the fox is a wily character that uses its native wit to take advantage of other animals. “Smart as a fox” is often meant as a compliment.

The red fox is the most widely distributed canid or wild dog in the world. There are 10 or 11 species of the genus *Vulpes*, depending on how they are counted. Three of these species live in North America—the kit fox, the swift fox and the red fox. The red fox is the only species found in North Carolina.

**History and Status**

The red fox is fairly common in North Carolina today. There are no records establishing red foxes in the eastern United States south of Rhode Island before the European red fox was introduced for sport hunting during colonial days. Red fox populations in most areas continue to remain stable, despite outbreaks of disease, such as canine distemper and rabies, and sustained harvest levels, likely due to their high reproductive rates. However, as coyotes become more abundant, red foxes may be displaced.

**Description**

The red fox is named for its reddish or orangish coloration. The tail, body and top of the head are all some shade of yellow-orange to reddish-orange. The undersides are light, and the tips of the ears and lower legs are black. While rare in North Carolina, red foxes can occur in other color variations, such as black, silver, or a cross between red and silver, commonly known as a “cross fox.” There is also a rare genetic condition that causes red foxes to lack guard hairs. Red foxes with this condition are called “Sampson foxes” and appear brown or grey in color. They are more likely to be active during the warmer hours of the day since their thin coat lacks insulation power.

The tail is long (about 70 percent as long as the head and body length), bushy and has a white tip. Adults are the size of a small dog and weigh from 7.7 to 15.4 pounds.

**Habitat and Habits**

Red foxes, like other wildlife species, prefer a diversity of habitats rather than large tracts of one habitat type. Preferred habitats include farmland, pastures, brushy fields and open forest stands. They frequently hunt the edges of these open habitats. The red fox forages on a variety of prey, but mice, meadow
voles and rabbits form the bulk of its diet. It will eat insects, birds, eggs, fruits and berries in spring, summer and fall. Since the red fox is also a scavenger, it may also eat carrion and garbage in some locations.

Most red fox activity occurs at night, but daytime movements are not uncommon. The red fox mates once a year, and in North Carolina, this generally occurs in January. The pups are born during late February through April. Five pups is an average litter, and they are born in a den that the parents dug themselves or that was dug by woodchucks or skunks. While pups are being raised, the parents center their activity around the den site. Males bring food to the female until the pups can be left alone. When she can leave them, the female nurses the pups during the day and hunts during the night. Pups remain at the den for the first month, and when they are 10 weeks old they begin to explore areas around the den on their own. As they grow older they explore farther from the den site, and during September or October, they disperse to establish their own home range. Female red foxes may breed when they are about 10 months old.

People Interactions
Foxes are shy and non-aggressive animals. One is not very likely to encounter a red fox in the wild, mainly because it is primarily a nocturnal species. However, it is not unusual to see a red fox during the daytime; daytime sightings of red foxes are not a sign that the animal is diseased. Rather, red foxes are responding to the abundance of food available in these areas during the day and at night. The red fox is economically important both as a furbearer and as a predator. As a predator, its appetite for mice and woodchucks has been of great benefit to most farming operations. As a furbearer, its coat or pelt is quite valuable—the value of the North American fox harvest has exceeded $20 million, although the value of fox pelts fluctuates.

Wild Facts

Classification
Class: Mammalia
Order: Carnivora

Average Size
Length: 36 in.-42 in. from nose to tip of tail.
Height: 16 in. at the shoulder.
Weight: 7.5-15 lbs. Males average about 2 lbs. heavier than females.

Food
Fruits and berries such as blueberries, raspberries and wild black cherries. Meat such as small rodents, rabbits, poultry, insects and carrion.

Breeding
Females are called vixens. Considered by some observers to be monogamous. Both males and females are sexually mature in 10 months. Adults mate generally in January in North Carolina.

Young
Called pups. Adults have one litter per year. Gestation period is about 52 days. Litter size averages about five. The pups’ eyes open in 9 days. Weaned at 8-10 weeks. Learn to hunt at 3 months. The family unit remains together until early fall when the pups disperse.

Life Expectancy
About 5 years, although due to the many mortality factors, most do not live that long.

Tracks

(Red fox tracks sometimes do not show the entire pad, due to fur growing on the feet, although less so in summer. The dark areas show where the pad actually touches ground.)
NCWRC Interaction: How You Can Help

The presence of red foxes in neighborhoods is not unusual. As with other wildlife, red foxes are adapting to the changes in habitat that are occurring in North Carolina. While development can force red foxes and other wildlife species, into suburban areas, they are highly adaptable to all habitat types. Residential areas can provide habitats for red foxes due to the readily availability of food sources and hiding/denning cover (i.e. ornamental shrubs, crawl spaces). Red foxes are opportunistic, thus they will take advantage of a wide spectrum of food supplies, including fruit, vegetation, pet food, garbage, and small prey (i.e. squirrels, rabbits, mice, insects), which can be found in neighborhoods due to bird feeders, gardens, and suburban landscaping.

Red foxes can become habituated to humans if easy access to unnatural foods exists. To avoid conflicts, people should keep their yards and neighborhoods clean of unnatural food sources. While well-intentioned, people that feed feral cats will attract red foxes, as well as coyotes, raccoons, opossums and skunks. Not only will this cause these wild animals to become habituated, but the concentration of wild animals will likely result in outbreaks of certain diseases, such as rabies or canine distemper. These diseases are fatal to all animals that contract them.

Q&A

1. What is the only species of the genus Vulpes (canid or wild dog) found in North Carolina?
   The red fox.

2. What do red foxes eat?
   Insects, birds, eggs, woodchucks, and berries. Also carrion and garbage.

3. In what two ways if the red fox valuable to man?
   As a furbearer with a valuable coat and as a predator preying on mice and woodchucks, harmful to farming operations.

Links

To see a red fox in action, go to: http://www.naturefootage.com/stockfootage/Red_Fox

References

Credits
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