

## A Fox Squirrel Finds a Vantage Point on the Stump of an Old Longleaf Pine Tree

(bolded words in text indicate key words and concepts)

### Student Information:

Fox squirrels are found across much of the Southeastern and Midwestern United States. Those that live in longleaf forests come in different colors. Some are black with silver or white markings around the feet, nose, and tips of the ears and tail. Others are silver-grey, with black markings. They eat the seeds of the longleaf pine, acorns, soft fruits like blueberries and blackberries, and many of the mushrooms that grow in longleaf forests.

### Teacher Information:

**Fox squirrels** are the largest tree squirrels found in North America. This large body size is an **adaptation** to help survive in the open landscape of the longleaf pine forest. In most dense forest habitats squirrels are able to jump from tree to tree, but among the widely spaced trees in an open longleaf pine forest the fox squirrel has to travel overland, requiring more energy and making a larger body size more advantageous. Fox squirrels of the Southeastern longleaf pine forests exhibit different **color phases** and are usually either black with grey or silver “points” around their feet, noses, and tail tips or a grizzled silver-grey with black markings. In the mountains of North Georgia and Alabama where longleaf pine is found, fox squirrels are reddish in color, often with black or white heads. They are typically about one and one half times as large as grey squirrels. Fox squirrels spend much more of their time on the ground than other tree squirrels, perhaps making them more vulnerable to **depredation** by foxes, bobcats, and snakes. Other **predators** include hawks and owls. They are largely **diurnal**, that is, they are active from about an hour before sunrise to about an hour after sunset. They construct leaf nests high in the crowns of trees in which they shelter, rest, hide, and raise young. They use cavities in trees much less than gray squirrels. Fox squirrels eat a variety of foods, including acorns, berries, tender buds, insects, fungi and the seeds of the **longleaf pine** itself. It has been suggested that they may disseminate the spores of some of the fungi (called truffles) of the longleaf forest which help longleaf grow. The large seeds of the longleaf are a favorite food. These seeds are nutritious, high in fat content and energy. The feeding squirrels often leave piles of cone scales and the skinny core of the cone as evidence of their feeding activity. The fox squirrel’s size helps them manipulate the large and heavy cones of the longleaf pine.

**Fatwood** stumps (similar to the one the fox squirrel in this picture is standing on) are the remnants of fallen longleaf pine trees and can be fairly common throughout the longleaf pine forest. However, due to the frequency of fire, these stumps generally do not stay around long. When fire sweeps through an area, stumps usually catch on fire. If it is dry enough, stumps will burn for days and eventually be entirely consumed. Left behind after the fire is a hole where the stump once stood with a myriad of interconnected tunnels which had housed the massive root system of the longleaf pine tree. These tunnels provide a home or a **refuge** for a wealth of different critters (from bugs to rodents to snakes).

**Key Words and Concepts:** adaptation, color phase, depredation, diurnal, fatwood, fox squirrel, longleaf pine, predation, refuge.