Missouri Master Naturalist
2020 Certification Pin

Northern Long-Eared Bat
Myotis septentrionalis

Description
A medium-sized bat, the Northern Long-eared Bat is between 3-4 inches long with a wingspan of 9-10 inches. It has medium to dark brown fur on its back while its underside is tan or light brown. This species also has a relatively long tail which is approximately one-third its total length. It is a member of the Myotis bat family. The term “Myotis” means “mouse ears.” That said, the Northern-long eared bat is easily distinguished by its long ears. They weigh between 6-9 grams – about the weight of 3 pennies. Females are usually slightly larger than males.

Range
Northern Long-eared Bats are found throughout the northeastern and north-central United States and into Canada. Their eastern range extends from Maine to Virginia along the Atlantic coast south to northern Georgia and Alabama. Their range extends west to Montana and the Yukon Territory in Canada. A total of 37 states, the District of Columbia, and 13 Canadian provinces are included in its official U.S. Fish and Wildlife Service range map. They are found throughout Missouri.

Diet
Like all bats found in Missouri, the Northern Long-eared Bat is an insectivore meaning it eats only insects. It emerges at dusk to begin feeding using echolocation and gleaning insects off vegetation. It feeds mainly in the understory of dense woodlands. They eat all insects but feed primarily on leafhoppers, moths, beetles, flies, and caddisflies.

Habitat
In the summer months, Northern Long-eared Bats can be found in woodland areas. They roost singly or in colonies under bark of trees and in tree cavities. Males and non-reproductive females can also be found roosting in cooler locations such as mines. Occasionally, they have been known to roost in structures including buildings or barns, but this is rare. In the winter months, Northern Long-eared Bats do not migrate but rather find hibernating spots (hibernacula) in caves and mines with a constant temperature and little to no air movement. They often squeeze into tiny cracks or crevices within these caves or mines.

Reproduction
Mating occurs in late summer or fall before the bats enter their hibernacula. The male’s sperm is stored by the females until spring when they emerge from hibernation. The females ovulate (release an egg) and use the stored sperm to fertilize the egg. This phenomenon is known as delayed fertilization. Upon fertilization of the egg, females form maternity colonies of 30-60 pregnant females. These females will remain together

with their young throughout the summer. Once fertilization occurs, gestation lasts about 50-60 days. A single pup is born helpless and blind. Pups nurse from their mothers until approximately 1 month. At about 3 weeks, young bats begin flying. They are completely independent from their mother by late summer. Males do not help with raising young.

Population Status

The population status of Northern Long-eared Bats is bleak. In 2006, White-nose Syndrome was first detected in hibernacula in New York. Since then, the disease has been transferred from hibernacula to hibernacula and rapidly spread from New York across much of the eastern United States. With the spread of White-nose Syndrome, the population of some populations of Northern Long-eared Bats has declined by 99%. Other causes of population decline are due to extensive logging and tree thinning of their forested habitat, human disturbance while hibernating and mortality from wind farms. Additionally, human activities have caused changes in cave climate which effect the bat's hibernating. Northern Long-eared Bats are listed as a federally threatened species and are endangered in Missouri.