



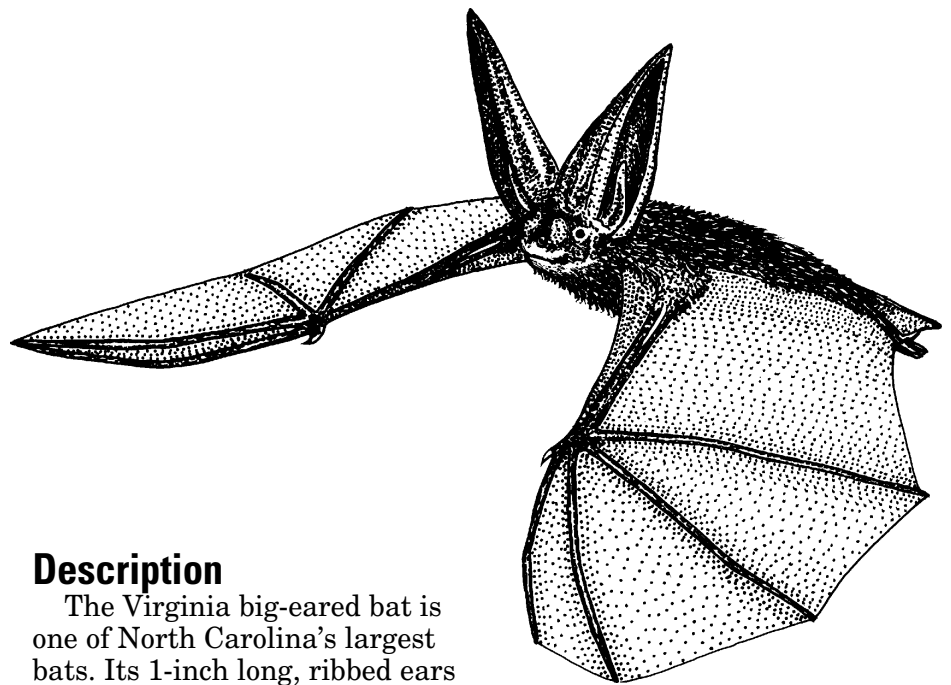
Virginia Big-eared Bat

Plecotus townsendii virginianus

The Virginia big-eared bat is a very rare resident of the north-western mountains of North Carolina. Most populations of this species, often called the western big-eared bat, live in the western United States. The eastern race of the western big-eared bat is rare. Biologists know of only one colony of these interesting bats in North Carolina. They stay in the Grandfather Mountain area most of the time, and a small cave near the Blue Ridge Parkway provides them with a winter sanctuary. Conservationists built a gate at the cave entrance to keep visitors from disturbing the bats during their hibernation.

History and Status

Biologists found Virginia big-eared bats in North Carolina in 1981. Several specimens collected from the population years ago were incorrectly identified as Rafinesque's big-eared bat (*Plecotus rafinesquii*), a closely related species. Once the mistake became apparent, a check of known caves in the area turned up a small population of Virginia big-eared bats. The U.S. Fish and Wildlife Service listed the Virginia big-eared bat as endangered in 1979 because the bat occurred in just a few caves in the Appalachian mountains and populations in these caves were declining. Conservation actions taken since then have apparently stabilized these populations.



Description

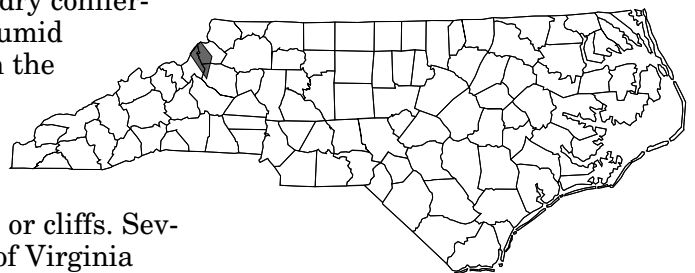
The Virginia big-eared bat is one of North Carolina's largest bats. Its 1-inch long, ribbed ears and glandular lumps on its nose distinguish it from all but one other bat, Rafinesque's big-eared bat. The Virginia big-eared bat has brown fur on its back and tan underparts, while the Rafinesque's big-eared bat has gray fur on its back and white underparts. The Virginia big-eared bat has shorter hair on its toes than the Rafinesque's big-eared bat. The Virginia big-eared bat is an agile flier. It is capable of hovering, as well as swift flight. It flies with deep wing beats, interspersed with brief glides. When flying slowly, the ears stand erect. During fast flights the ears are parallel with the ground and hardly noticeable.

Habitat and Habits

The western big-eared bat lives in varied habitats in the western United States, including desert scrub, dry coniferous forests and humid coastal forests. In the eastern United States, favorite habitats include oak-hickory forests having caves or cliffs. Several populations of Virginia big-eared bat live in northern hardwood forests, including

North Carolina's population.

Little is known regarding the habits of North Carolina's Virginia big-eared bats. Much of the population hibernates in a small cave on Grandfather Mountain each year. The number of bats using this cave increases during late summer and fall. Mating presumably occurs here. Many of the cave's bats depart during February and March. The females move to a maternity colony, probably during March. Biologists have not found any maternity colony sites for this population, so the exact timing of the movements of the female bats is unknown. The females give birth to a single young in June. At first, the females leave the young at the maternity



Range Map:
Rare ■

colony while they feed each night. Each female recognizes her own young and nurses it until it is about two months old. The young grow quickly and can fly when about three weeks old.

Range and Distribution

The western big-eared bat lives throughout most of western North America, with many populations along the northern Pacific Coast and in the southwestern United States. Isolated colonies occur in the midwestern and eastern United States. The Ozark big-eared bat (*Plecotus townsendii ingens*) lives in Kansas, Oklahoma, Texas, Arkansas, and Missouri. The Virginia big-eared bat exists in isolated colonies in Virginia, West Virginia, North Carolina and Kentucky. The Grandfather Mountain colony uses habitats in Avery, Caldwell and Watauga counties. The Rafinesque's big-eared bat lives in eastern and western North Carolina. Most Rafinesque's big-eared bats in the mountains live south of the French Broad River.

People Interactions

Few people see this bat in its natural habitat because it is relatively rare in North Carolina and lives in caves and mines throughout the year. Those who visit caves and mines may find Virginia big-eared bats in northwestern North Carolina. This bat is a docile animal, though its gremlin-like looks frighten some people. Disturbance to hibernating Virginia big-eared bats may cause the loss of stores of fat needed to

survive harsh winters. Disturbance to maternity colony sites can kill young bats. Virginia big-eared bats may fly when disturbed, but close passes by flying bats are not attacks.

Many people are afraid of bats. While bats in buildings can cause a mess with guano (bat droppings), they rarely harm the people living there. Contrary to popular belief, most bats are not rabid. However, any wild mammal easily caught is likely ill or injured. People, especially children, should not handle sick or injured wild mammals, including bats. This simple precaution is the most practical way to prevent rabies transmission from wild mammals.

References

- Barbour, Roger W., and Wayne H. Davis. *Bats of America* (Lexington, Ky.: The University Press of Kentucky, 1969).
- Tuttle, Merlin D. *America's Neighborhood Bats* (Austin, Tx.: University of Texas Press, 1988).
- Webster, William D., James F. Parnell, Walter C. Biggs, Jr. *Mammals of the Carolinas, Virginia and Maryland* (Chapel Hill, N.C.: The University of North Carolina Press, 1985).

Credits

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VIRGINIA BIG-EARED BAT

Classification

Class: Mammalia
Order: Chiroptera

Average Size

Total Length: 3 in. to 4 in.
Wingspread: 11 in. to 12 in.
Weight: 0.4 oz.

Food

Moths

Breeding

Mating occurs during hibernation. Sperm stored until ovulation in March, when fertilization occurs.

Young

Single young born after gestation of around 2 months. First flight occurs at age of 3 weeks. Young weaned at age of 2 months.

Life Expectancy

Adult survivorship is about 80 percent. Some individuals live for 15 to 20 years.