

Bat Survey

In 2016, BRMC sponsored and facilitated a bat survey led by Chris Hobson of the Virginia Division of Natural Heritage. The survey worked to establish a baseline of bat population present in the Bull Run Mountains and investigate the possible impact of White Nose Syndrome on the population.

The survey was intended to:

- Collect and establish a baseline inventory of bat fauna on the BRMNAP
 - Catalog & identify any rare species
 - Collect data on the presence or impact of White Nose Syndrome
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White Nose Syndrome

White Nose Syndrome (WNS) first appeared in North America in 2006. Since then, it has decimated bat populations along the east coast and Appalachia regions. A fungal infection that affects the muzzles and wings of bats, cave-dwelling species have been most impacted when the infection suffocates them during winter hibernation.

Northern Long-Eared Bat

In 2016, the US Department of Fish and Wildlife reported that WNS had been found in a population of bats in Washington state, the first record of WNS west of the Rockies.



Northern Long-Eared Bat

While Virginia has reported presence of WNS in many locations, including the nearby caves around the Shenandoah Mountains, this was the first effort to analyze it on the BRMNAP.

Results

Survey methods included mist nets, ultrasonic receivers that recorded bat calls. Bats captured in mist nets were aged and sexed, measured, weighed, and inspected for disease damage.

Four species were confirmed over the course of the summer, including the Eastern red bat (*Lasiurus borealis*), Big brown bat (*Eptesicus fuscus*), Evening bat (*Nycticeius humeralis*), and Northern long eared bat (*Myotis septentrionalis*). Audio recordings suggested the presence of an additional three species, including Hoary bat (*Lasiurus cinereus*), Silver-haired bat (*Lasionycteris noctivagans*), and Tri-colored bat (*Perimyotis subflavus*).

The discovery of the Northern long eared bat was especially significant, as this species is considered federally threatened, meaning that it is likely to become endangered in the near future. The one individual captured was marked with a radio transmitter in an attempt to find the roost tree, which if found would mean additional layers of protection for a certain radius around the tree. However, the bat was never re-located on the BRMNAP. The presence of this species was still a significant documentation, guiding future preservation efforts.

Click here for the **Division of Natural Heritage Bat Survey**