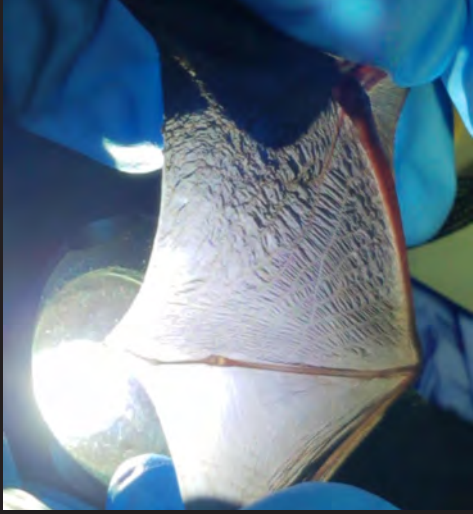


Pulling Bats from the BRINK OF EXTINCTION



Spring is typically the time bats emerge from hibernation to play an important role in the ecosystem. Big brown bats, which are common in Fairfax County, can consume their body weight in insects each night, and it is estimated that bats save U.S. farmers as much as \$53 billion in insect-related crop damage and insecticide use annually. But a fungal disease called white-nose syndrome is rapidly taking its toll on Virginia's cave-dwelling bat population and threatening to disrupt the ecosystem. It rouses bats from hibernation early causing them to consume their winter fat stores and starve to death before spring.

"The disease is moving much faster than recovery because bats don't have the reproductive potential that other animals have," said Park Authority ecologist Kristen Sinclair. "Most bats have only one pup per year."

White-nose syndrome was first detected in a cave near Albany, New York in 2006. Since then, it has spread to 33 U.S. states and seven Canadian provinces, resulting in one of the steepest wildlife collapses of the past century. Death rates of several species exceed 95 percent, and some species may be at risk of extinction.

"The little brown bat was one of the most common bats in our area 10 years ago, and it has almost disappeared from Fairfax County because of white-nose syndrome," Sinclair said. "Losing these animals puts the food web and ecosystem out of balance."

To help protect bats in Fairfax County parks, Sinclair and other Park Authority ecologists and wildlife experts are spending their third summer monitoring bat activity in parks. The goal is to determine the presence of rare or declining bat species and develop strategies to help them thrive.

"We use mist netting to capture bats to identify the species, take measurements and evaluate each animal's health," Sinclair said. "Bats are then released back into the wild."

Acoustic monitoring equipment is also used throughout the summer to record bat echolocation calls. The sounds are mostly undetectable to the human ear but can be picked up by an ultrasonic microphone.

"We have recorded seven bat species in Fairfax County parks," Sinclair said. "Each species emits a unique call that is identified using special computer software."

Sinclair says the long-term goal is to determine where in parks bats cluster to roost and raise their young, often in dead trees. "Preserving standing, dead trees, also known as snags, may go a long way toward conserving our local bats," Sinclair said.

Learn more about these beneficial nocturnal animals in one of our bat programs or at the Spring Fling at Lake Accotink on May 11. Details are in the Nature section.