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Conserving South Carolina's At-Risk Species:

Species facing threats to their survival

Tricolored bat

(*Perimyotis subflavus*)



Tricolored bat / Photo credit: USFWS

Description

The tricolored bat, formerly known as the eastern pipistrelle (*Pipistrellus subflavus*), is a small bat weighing 0.2 to 0.3 ounces (5 to 8 gr) and has a wingspan of 8 to 10 inches (21 to 26 cm). The term "tricolored" refers to the bat's yellowish-brown coat that is dark at the base, yellowish-brown in the middle, and dark at the tips. The wing membranes are blackish, but the face and ears have a pinkish color. An obvious identifying characteristic of this species is the pink color of the skin on the radius bone. The feet are also relatively large compared to its body size.

Range

The tricolored bat is a common bat found throughout the forests of the eastern U.S., and is distributed from Canada south into Mexico and west into Michigan, Minnesota, and Texas. The species can be found statewide in South Carolina.

Habitat

Tricolored bats are associated with forested landscapes, often in open woods. They can also be found over water and adjacent to water edges. In South Carolina, sparse vegetation and early successional stands

were found to be the best predictor of foraging habitat use by tricolored bats.

Status

NatureServe's Rounded Global Status is G2 - Imperiled (Global Status last changed on 3/12/2015) and is listed as a Highest Priority species in the South Carolina 2015 State Wildlife Action Plan. Once considered relatively common throughout South Carolina, this species has recently been affected by white-nose syndrome (WNS) and populations are in decline. WNS, first detected in bats in New York in 2006, is a disease that is killing hibernating bats in eastern North America. Before WNS, the range of this species was expanding westward from South Dakota to Texas and New Mexico. The U.S. Fish and Wildlife Service was petitioned to list the species in June 2016. A 90-day finding is still pending as of this writing.

Threats

WNS is a major threat to tricolored bats. Populations of this species have declined greatly since 2006. The first case of WNS in South Carolina was confirmed in a tricolored bat at Table Rock State Park in March of 2013. In 2014, two other cases of WNS were confirmed. Disturbance or destruction of natural and artificial roost structures also pose threats to the species, especially to hibernacula and maternity roosts. Wind turbines have the potential to impact the species, especially if erected near roosts, colony sites, and along migratory pathways. Pesticide poisoning, especially organochlorines and anticholinesterase, is a concern as it has been shown to cause population declines in insectivorous bats. Habitat loss due to deforestation of oak forests from Sudden Oak Death disease may pose a threat to habitats critical to forest-dwelling bats. Climate change

also has the potential to threaten the species as increased temperatures may make southern hibernation sites unsuitable.

Management/Protection Needs

State law protects all bat species in South Carolina. Habitat protection and management recommendations include working to prevent or reduce disturbance to natural and artificial roost structures, as well as to maternity colonies and hibernacula. Where and when possible, create or maintain patches of structurally diverse forest, providing a variety of suitable roosting and maternity sites. Forestry practices should incorporate buffers around known roosts, foraging areas, and migration corridors via landowner incentive programs, conservation easements, lease agreements, or purchases. Minimize large-scale pesticide use, especially around known foraging areas and maternity roosts. Continue to survey and monitor for the species. Further research is also needed to identify the best placement of wind turbines so as to minimize impacts to bats. Continue with education and outreach efforts on the species.

References

NatureServe. 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://explorer.natureserve.org>.

South Carolina Department of Natural Resources - South Carolina Bat Conservation Plan: January 2017

Contact

U.S. Fish & Wildlife Service
South Carolina Field Office
843/727-4707
morgan_wolf@fws.gov