

Devil's Den State Park Cave Closures

As of April 16, 2010, all of the caves of Devil's Den State Park are closed to the public. Please be advised, it is unlawful to enter any of the caves at Devil's Den State Park.

Why are we closing our caves?

White-nose syndrome (WNS) has recently been found in Dunbar Cave State Park (DCSP) 60 miles NW of Nashville, TN. This was a jump of nearly 300 miles from the closest cave with WNS. This is a serious concern for our park considering that we are just about 400 miles from DCSP. Based on recommendations from the US Fish and Wildlife Service and Arkansas Game and Fish, we have decided it is necessary to close our caves. We can't risk allowing people from an infected site in our caves to potentially spread WNS.

What about the bats?

We will be installing a gate that allows for bats to pass through so that we do not interfere with their hibernacula.

Why do we want to save the bats?

Devil's Den State Park contains known hibernacula of the Ozark Big-Eared Bats (*Corynorhinus townsendii ingens*) and Indiana Bats (*Myotis sodalis*). Both of these species of bats are endangered. The safety of these two species alone warrants the need to close the caves. However, all bats species found at DDSP are beneficial, nocturnal insectivores.

Is there any way to save an infected bat?

Research is being done with an anti-fungal called terbinafine. It is still in the early stages of research so no conclusive data has been released.

Can you prove that humans are transporting it?

There have been many studies done on whether it is something that can be transmitted by humans and all signs point to yes. One of the main points to think about is where it came from:

- Though the origins of WNS in North America are not clear, *Geomyces destructans* was recently confirmed on a healthy bat in France. There are reports of the fungus on bats in several other European countries, but affected bats do not appear to be ill. It appears the European species that have evolved with the pathogen have developed resistance, and new, "native" hosts have little or no immunity. If *Geomyces destructans* was indeed carried to the United States from Europe, human mediated transmission is the likely means. Bats are not known to migrate across the Atlantic, and are very unlikely to have the physiological capacity to make such a flight.

Other things to consider:

- In 2008-2009, WNS jumped from hibernacula in southern New York to sites in central Pennsylvania, northern Virginia, and eastern West Virginia, a distance of more than 500 miles. No bat species affected by WNS is known to migrate more than 250 miles annually. Scientists have thus come to believe that while bat-to-bat transmission may be primarily responsible for the local or regional spread of white-nose, some other vector is carrying the disease to new and distant sites.
- Data from trials at the National Wildlife Health Center indicate that *Geomyces destructans*, the fungus associated with WNS, can be acquired from the bats' environment as well as transmitted among bats. Meaning that the fungus can be found in the soil which can then get on your gear and moved from cave to cave.