



# Hoosier National Forest Highlights



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## **Caves and Karst on the Hoosier National Forest**

*By Trey Scott, Wildlife Technician*

The Hoosier National Forest provides a wealth of opportunities to Indiana citizens. There are trails, camping, hunting and fishing, wildflowers and fall colors, and even songbirds to watch that fill the forest with song. Many folks who enjoy these opportunities are unaware that a whole other world exists, literally beneath their feet. A world of caves and karst where life flourishes in the absence of light.

Karst is a descriptive term for a unique landscape usually associated with limestone. Water dissolves limestone over thousands of years, and forms unique features such as sinkholes, caves, and even sinking streams. The Lost River in Orange County is a good example of a sinking stream. Sinking streams develop when underlying bedrock fissures allow the stream to pass through the streambed and create underground caverns that channel the stream flow. Sinking streams often reappear on the surface when the underground rock layer becomes more resistant to water flow. The Orangeville Rise west of Orleans exemplifies this process.

The water table and water flow in karst areas is often hard to predict. Periods of heavy rain can result in flooding of karst areas, and flooding may be erratic in nature. An area that was flooded in the morning may be relatively dry in the afternoon. Karst areas riddled with sinkholes can be especially problematic to navigate in times of flooding.

Despite their susceptibility to flooding, underground karst areas contain a wealth of life. Our local cave systems have unique species such as the blind crayfish and the big blind cavefish, which thrive in darkness. A majority of the bat species found within our region use caves for winter hibernation, including the Federally-endangered Indiana bat.

The Hoosier NF and Indiana Karst Conservancy (under cooperative agreement) complete annual surveys in many of the cave systems on the Forest. During surveys, species are counted, environmental data such as temperature and humidity are recorded, and any physical changes to the cave's appearance are noted.

In addition to annual surveys, Cave Biologist, Dr. Julian Lewis also assists the Hoosier. Dr. Lewis is an expert in the field of cave insects, and will be surveying caves and karst on newly acquired lands. Past survey work by Dr. Lewis has uncovered new records for many insect species here in southern

Indiana. Several of the insects discovered during the surveys are only found here in southern Indiana, with some only residing in a particular cave system.

In recent years, surveys have also checked for White Nose Syndrome, a fungal pathogen of bats. White Nose is a major threat to our bat populations, which are a highly beneficial asset to farmers and residents alike. White Nose-induced mortality will likely lead to an increase in insect crop pests and overall increases in regional insect populations.

All caves on the Hooser are closed to the public to help protect bats from the spread of the White Nose Syndrome. Research and survey personnel use special clothing and decontamination procedures to reduce possible spread of the disease.

For more information on the Hoosier's cave and karst program contact Trey Scott at 812-276-4741 or [grscott02@fs.fed.us](mailto:grscott02@fs.fed.us).

Captions to Pictures:



*Tricolor bat*



*Stalactites in a cave under the Hoosier and a bat – the moisture on its fur causing it to sparkle in the light.*