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## **Bat Disease Fungus Identified**

**By [HENRY FOUNTAIN](#)**

Something is killing the little brown bats of the Northeast, and researchers may have fingered the culprit: a fungus.

David S. Blehert of the [United States Geological Survey](#)'s National Wildlife Health Center in Wisconsin and colleagues identified a fungus linked to white-nose syndrome, a condition that has affected bats in recent winters in upstate New York, Vermont and Massachusetts. The fungus, newly described, is unusual in that it grows in the cold, dotting areas of the bat's skin with white strands. It penetrates the skin through hair follicles and sweat glands and may cause the bats to starve while they are hibernating, the researchers said.

"We do have good circumstantial evidence that this could be the primary pathogen" causing the deaths of large percentages of populations of little browns and other bats in caves in the region, Dr. Blehert said. The die-offs are one of the worst calamities to hit bat populations in the United States.

It had been thought that the fungus was a secondary symptom of whatever was killing the animals — a virus or a toxin like an environmental contaminant. But the fact that the identical organism was found in bats from several caves "kind of rules out the possibility that there are all kinds of fungi out there and that opportunistically they are infecting the animals," said Alan C. Hicks of the New York State Department of Environmental Conservation, a co-author of a paper on the fungus published online by Science.

Dr. Blehert said that the infection could have led to starvation because of the way bats hibernate — they cycle through two-week stages of deep torpor interrupted by brief wakeful periods. The fungal infection may make the bats wake up more often, and since each period of wakefulness uses up vast stores of fat, the bats may deplete their energy reserves much sooner than normal.

More research is needed to determine how to combat the die-offs, but one thing is clear, Dr. Blehert said — just spraying a cave with fungicide could do more harm than good. "Wiping out all the fungal organisms in a cave probably would be a bad idea," he said.

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