High Country News

Return to the bat cave

Sarah Keller | April 12, 2013

Since 2006, a powdery white fungus has killed at least five and half million bats that would otherwise be eating insects, pollinating flowers and hanging out in caves.

But as far as scientists know, the disease called white-nose syndrome, which grows on bat snouts and wings, hasn't infected a single bat in the Western United States. Still, it's been steadily spreading from where it was first recorded in New York, with confirmed cases of the devastating fungus running south to North Carolina and Alabama and west into Missouri.

In 2010, when the disease first jumped the Mississippi, the Forest Service kept Western caves open, but asked cavers to disinfect their equipment. But that summer, the agency closed all caves and abandoned mines in Colorado, Wyoming, South Dakota and Kansas, to keep away fungal spores that hitch rides on spelunker's boots or caving equipment. The emergency closure was done without public input, and caused outcry from the caving community

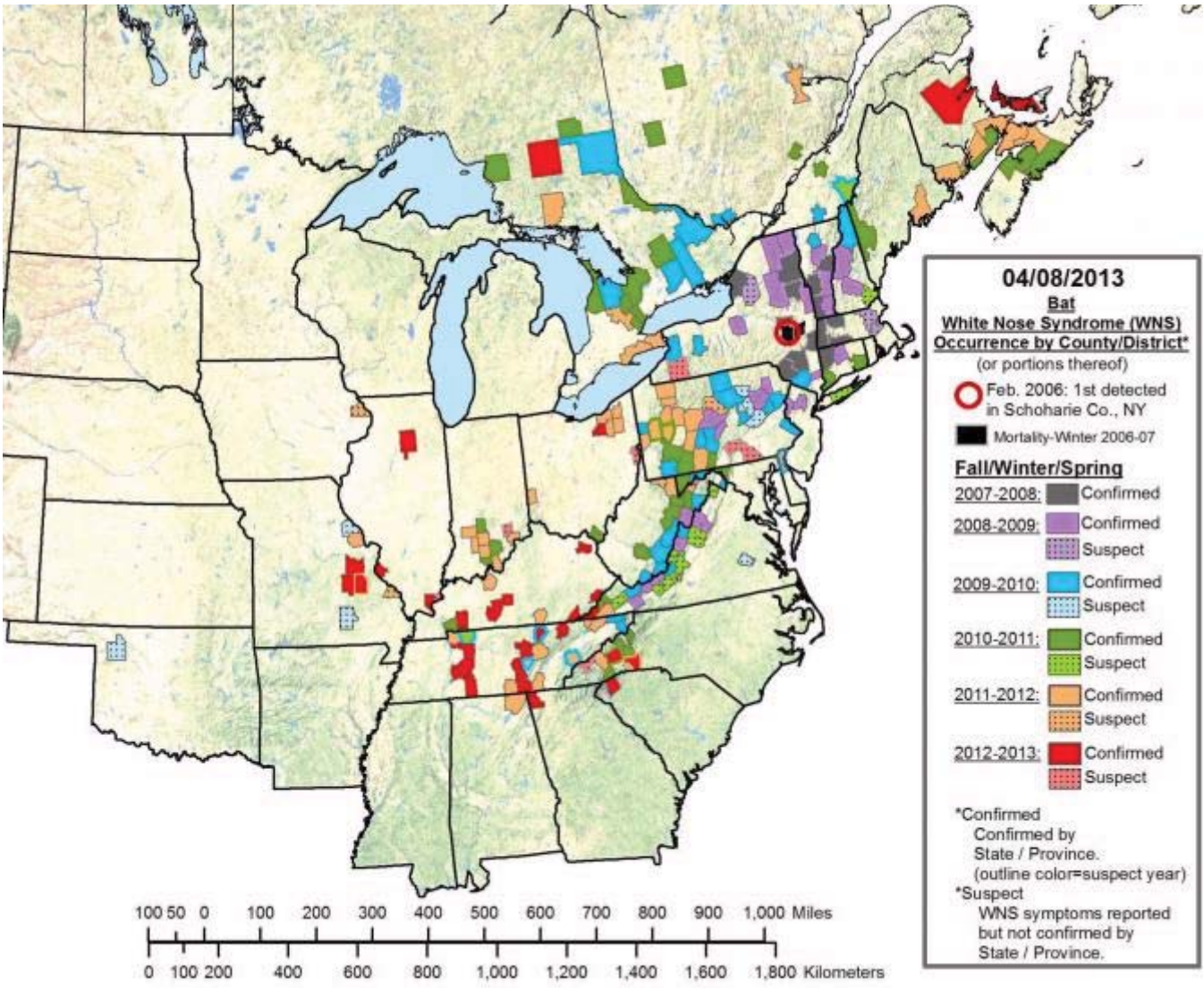
But often, it was a closure in name only. The original order didn't physically close caves; it left construction of actual gates on caves up to local managers, according to Richard Truex, a Forest Service wildlife ecologist. That means that knowledgeable, responsible spelunkers were likely staying away, leaving caves more vulnerable to bad actors, vandalism and possibly errant fungal spores.

Recognizing that the organized caving community "can and should be an ally in managing this disease," as Truex put it, the Forest Service just ended their blanket cave closure after taking public comment as part of a long-term planning process for white-nose syndrome.

Now some caves are open again on paper, as long as white-nose syndrome isn't found within 250 miles of that ranger district. However, all caves where bats are known to hibernate are closed during the winter, when the bats are at greater risk from the cold-loving fungus, which causes them to leave their caves and fly into the deadly cold.

The new plan also sets up a registration system for cave visitors, prohibits using caving gear from states with white-nose syndrome and includes requirements for decontaminating gear or clothes. This follows some of the recommendations Bat Conservation International made in their comments to the Forest Service.

But not everyone is convinced re-opening some caves is a good idea. For example, the Center for Biological Diversity is against



Map by: Cal Butchkoski, PA Game Commission

lifting the closure, arguing that it's too risky and gives a small group of recreationists priority over Western bats.

Winifred Frick, a bat ecologist at the University of California, Santa Cruz, thinks that in general, closing caves is a prudent way to buy scientists more time to learn about white-nose syndrome and find ways to thwart the fungus. But as long as the caves are open, she suggests scientists and managers use the opportunity to study the problem. "If there are targeted areas where managers are working with researchers, and if they had a study where some caves are closed and some aren't, that could be hugely valuable," she said

After all, there's still a lot to learn about white-nose syndrome. We still don't know how much cave closures help protect bats, or how seasonal changes affect the fungus. There are a lot of unknowns about transmission too (a major focus of Frick's), like how the fungus is transmitted from bat to bat, how bats pick it up from cave walls, and the role people play in moving the fungus from cave to cave.

Frick and her colleagues are racing to understand, and hopefully slow, "the most precipitous decline of North American wildlife in living memory," as HCN contributing editor Michelle Nijhuis described it in a 2011 Smithsonian story. If white-nose syndrome shows up in a Colorado cave, whether it travels there by boot or bat, there's still little anyone can do to stop it.