## The Boston Blobe

December 20, 2010

## Scientists ask feds for emergency protection of bats

by Beth Daley

Scientists and conservation groups are asking the U.S. Fish and Wildlife Service to immediately protect what was the most common bat species in the Northeast only five years ago.

The little brown bat is being ravaged by White Nose Syndrome, a fast-moving deadly illness named for a powdery white fungus that appears on bats nose, face and wings. The disease has already killed more than a million bats in the U.S. and scientists say it could mean the extinction of little brown bats in the Northeast within 20 years.

"The little brown bat is in imminent danger of extinction in its northeastern core range due to white-nose syndrome, and the species is likely in danger of extinction throughout North America," said Dr. Thomas H. Kunz of Boston University, one of the world's leading authorities on bats.



CAPTION: Bat with white nose syndrome. (Al Hicks. New York State Department Of Environmental Conservation.)

The situation is so dire, the scientists said, that they are asking the federal agency to place the animal on the endangered species list as an emergency measure and then do an assessment. Kunz and other scientists conducted their own study earlier this year that ran

computer models of bat populations stricken by the syndrome and determined there is a 99 percent chance the little brown bat will not sustain a regional population for more than 16 years unless death rates slow.

Meanwhile, researchers at the U.S. Geological Survey's National Wildlife Health Center in Wisconsin have found that white nose damage to bat wings may represent a new way fungi can harm mammals. Other skin infections in mammals from fungi, such as ringworm or athlete's foot, remain superficial and do not invade living tissue. Yet white nose syndrome does.

"This fungus is amazingly destructive – it digests, erodes, and invades the skin – particularly the wings -- of hibernating bats," said Carol Meteyer, a pathologist with the U.S. Geological Survey's National Wildlife Health Center and a lead author of the research published in BMC Biology.

"The ability of this fungus to invade bats' wing skin is unlike that of any known skin fungal pathogen in land mammals," she said.

The illness was first identified in 2006 in New York and has spread from New Hampshire to Tennessee as well as north into Quebec and Ontario. In addition to the white fungus, affected bats act erratically, flying around in broad daylight in winter – a time they are normally deep in hibernation in ice-encrusted caves and abandoned mines. In some affected bat colonies in the Northeast, mortality rates from white-nose syndrome have been nearly 100 percent.

The regional extinction of the little brown bat, which has the phenomenal ability to eat its body weight in insects every night, would wipe out a predator of many garden and agricultural pests, as well as of some mosquitoes.

The petition was filed along with the Center for Biological Diversity, a national advocacy group, Friends of Blackwater Canyon in West Virginia, and the D.C. based Wildlife Advocacy Project and Bat Conservation International.

The federal agency has already received a petition by the Center for Biological Diversity to protect the northern long-eared bat and eastern small-footed bat, two other species whose populations are being decimated by white-nose syndrome.