



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Washington, D.C. 20240



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## Memorandum

To: Regional Directors

From: **ACTING**  
Director

Subject: Service Guidance on Managing White-nose Syndrome in Bats in  
the National Wildlife Refuge System

The purpose of this memo is to provide updated information and guidance to the Refuge System regarding management of white-nose syndrome (WNS) in bats. WNS is a disease affecting hibernating bats that originated in New York in 2006 and has since spread throughout the northeast causing large-scale mortality. The fungus associated with WNS, *Geomyces destructans*, has been detected as far west as Oklahoma and is expected to continue spreading at a rapid rate.

More than half of the 45 bat species that occur in the United States rely on hibernation as a primary strategy for winter survival. All four endangered species and subspecies of hibernating bats in the U.S. rely on undisturbed caves or mines for successful hibernation and are at risk from WNS. Three of these species, Indiana bat (*Myotis sodalis*), gray bat (*M. grisescens*), and Virginia big-eared bat (*Corynorhinus townsendii virginianus*), are within the affected area, and the remaining subspecies, Ozark big-eared bat (*C. t. ingens*), will likely be at risk soon. Over the last four years, WNS has killed more than one million bats of six different species. WNS threatens the very survival of an array of bat species.

The fungus, considered the primary causal agent for WNS, is transmitted primarily by bat to bat contact. Evidence also indicates that it could be transmitted by humans through inadvertent transfer from an affected site to an unaffected site, via fungal spores on clothing, footwear or gear.

Our best strategy to slow the spread of WNS is to develop and implement preventive and containment strategies. Refuges that manage significant bat resources in the northeast and southeast are already aggressively involved in the interagency response to this threat, through actions including cave closures, bat monitoring and disease surveillance, implementing decontamination procedures, and support of research.



Effective immediately, and until further notice, all refuges should implement the following when dealing with bats and hibernacula or roosts, including:

- Close all caves and abandoned mines on refuges to public entry.
- Evaluate existing and proposed scientific investigations that involve entry into Refuge caves or mines for their potential to disturb bats and/or spread WNS. Potential benefits of research should be weighed against risks; research or monitoring activities should not be conducted if risks cannot be adequately addressed.
- If entry into a cave or mine for a refuge management activity is warranted, implement current research and monitoring protocols for decontamination, disinfection, and containment to prevent the spread of WNS (June 2010, June 2009) posted on the Service WNS website. These procedures are in revision and will be posted on the website when they become available.  
<http://www.fws.gov/whitenosesyndrome/research.html>
- The human health risk from WNS is unknown but is believed to be low. Nevertheless, caution should always be exercised when handling bats by using safe work practices and personal protective equipment to minimize exposure to infectious or toxic agents.
- Where appropriate, cooperate with researchers to help determine the causes(s) and limit the spread of WNS.
- Participate in public awareness and education campaigns to inform Refuge visitors about WNS and its threat to bat conservation.

The Service is leading the development of an interagency WNS National Response Plan to assist states, federal agencies, and tribes in managing WNS in bats and each Region has designated a WNS Coordinator/POC to assist in coordinating the national response. All Service contacts are listed on the WNS website.