Caving Protocols in Response to White-Nose Syndrome in Virginia

July 12, 2010 (supplants previous statements)

These protocols have been adopted by the Virginia Cave Board and endorsed by the Virginia Speleological Survey, the Cave Conservancy of the Virginias, the Board of the Virginia Region of the National Speleological Society, and the Butler Cave Conservation Society. These protocols were developed in consultation with staff of the Department of Conservation and Recreation Natural Heritage Program and the Department of Game and Inland Fisheries, and with input from members of the Virginia caving community.

This statement is a revision of previous statements from the same coalition. The protocols herein will continue to be revised as new information becomes available. Please check the Virginia Cave Board Web site periodically for updates: http://www.dcr.virginia.gov/natural_heritage/cavehome.shtml.

White-Nose Syndrome (WNS) is now identified in every major watershed in the karst portions of western Virginia except for the Powell River basin in extreme southwestern Virginia (see the figure). Any caving in the Powell River watershed should take place using equipment dedicated to that watershed, and should be thoroughly decontaminated when moving between cave systems. Decontamination protocols are available at http://www.fws.gov/northeast/wnscavers.html. Again, please **do not use any gear in caves of the Powell River watershed (Lee and Wise Counties) that has been used in the WNS-positive area**.

Despite both the widespread implementation of decontamination procedures and a vast reduction in caving activity in response to the WNS crisis, the tragic discovery of the *Geomyces* fungus during the winter of 2009–10 on bats in cave hibernacula in Tennessee, Missouri, and Oklahoma and in three previously unaffected *Myotis* species demonstrate continued rapid spread of the disease. This supports the hypothesis that a nonhuman vector is the primary mechanism of WNS spread. The strong correlation between known bat migration routes with the geographic spread of WNS and the demonstration of bat-to-bat transmission in the lab point to bat-to-bat transmission as the culprit. While it seems increasingly unlikely that humans are the primary vector for transmission of WNS, human transport of spores may increase the rate at which it spreads. Of greatest concern is the potential for "jumps" over distances or barriers where the bats themselves would not transport WNS. WNS appeared first in the Virginias in recreational caves, several of which had been visited by cavers who had previously visited WNS-affected caves in New York.

While decontamination and isolation of gear are still recommended for the Powell River basin, different protocols are now in order for the remainder of Virginia's caving areas, where WNS is rapidly becoming pervasive. The major objectives of the following five protocols are to limit disturbance to already distressed bat populations and to prevent the spread of WNS beyond its current range due to caver transport of spores:

1 – Seasonal or year-round closures of significant bat caves or sections thereof should be strictly observed. This list will be maintained collaboratively by staff from the Department of Game and Inland Fisheries and the Department of Conservation and Recreation, and will be included on the VAR list of Limited Access Caves.

2 - Any gear used in caves in Virginia or elsewhere within the WNS-positive range should not under any circumstances be taken into caves beyond the range of WNS.

3 – People from areas where WNS is not known should not use their gear in Virginia or elsewhere within the WNS-positive range unless that gear is then dedicated for use only within WNS-positive areas.

4 – Cavers are encouraged to thoroughly wash their gear when moving between cave systems within the WNS range to decrease the number of *Geomyces* spores and other pathogens, contaminants, and organisms transported between caves. Decontamination protocols are available at http://www.fws.gov/northeast/wnscavers.html for those cavers continuing to implement full decontamination procedures.

5 – Cavers should, as always, follow any additional restrictions or requirements of private cave owners and jurisdictional entities in charge of caves on public land. On March 26, 2009, the U,S, Fish and Wildlife Service requested a voluntary moratorium on all caving activity in states known to have hibernacula affected by WNS, and all adjoining states, unless conducted as part of a U.S. Fish and Wildlife Service -sanctioned research or monitoring project. The advisory is posted on the Internet at www.fws.gov/northeast/wnscaveadvisory.html.