

Caving Advisory Committee; WNS Saturated States



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Issue raised by NEBWG members in WNS saturated states:

- 1) Moratorium's primary goal was to reduce spread. However, the rates of caving despite moratorium are increasing each year, near pre-WNS levels currently in most areas .**
- 2) Emphasis of management in saturated states might be better served to maximize protection of survivors, not reducing spread.**
- 3) Moratorium message not clear (i.e. federal caves; decontamination protocols attached for when entry occurs)**

.....So a committee was formed

Whereas, one of the main goals of the voluntary moratorium is to reduce the spread of *Geomyces destructans* from contaminated to clean sites, particularly the larger movements beyond the typical spread caused by the bats themselves, based on the hypothesis that human visitors to caves are capable of spreading a sufficient loading dose of the fungal spores to other caves that have not been contaminated and assist with the spread of WNS.

Whereas, large movements of WNS and the associated fungus occurred each year the moratorium was in place.

Whereas, northeast states are now nearly or completely saturated with WNS and local spread is not a management concern.

Whereas, decontamination protocols are more thoroughly tested than the time of the moratorium inception and proven to be effective.

Whereas, commercial and publicly owned show caves are explicitly excluded from the federal advisory, thus leading to confusion for managers/cave owners on best management practices and providing a clear indication that not all caves/caving activities are treated equally.

Whereas the organized faction of the recreational caving community has proven to be a valuable ally in our study and understanding of WNS and can be a significant player in the conservation of cave bats in affected areas.

Whereas, the evidence clearly indicates that caving activities are resuming more each year in the Northeast states, almost to pre-WNS levels, and easing the restrictions of the caving moratorium would therefore not increase the risk or only minimally increase the risk of long-distance movements by humans.

Whereas, it has been shown in Europe that bats at contaminated sites encounter *Geomyces destructans* every year and develop infections (Martinkova 2010, Puechmaille 2011), but without large-scale mortality events observed in North America.

Whereas, unpublished data in Northeast states document bats with fungus in successive years once a site is contaminated, and unpublished UV work in Pennsylvania indicates 100% of spring emerging bats that are survivors at a site confirmed four years ago have infections from *G. destructans*.

Whereas, research that is in the process of being published (Reeder et al.) clearly documents that bats with WNS infections arouse 2-4 times as frequently as they should.

Whereas, hibernating bats exist on a very limited energy budget, and WNS-increased arousals are contributing to early depletion of depot fat and subsequent mortality, and the level of increase in arousals for survivors battling annual fungal infections is unknown.

Whereas, European bats are afforded a much higher level of protection from disturbance.

Whereas, the greatest threat to surviving bats in contaminated North American sites within the saturated area (or any contaminated site) may now be repeated winter disturbance causing additional arousals. These additional arousals may decrease the survival of juveniles trying to survive their first hibernation and first fungal infection, may decrease female reproductive output, and may cause mortality to the bats that have survived prior infection, thus slowing or reversing any potential recovery.

Therefore, we conclude that the main goal of the moratorium has never been achieved, particularly in the saturated states. We believe a modification of this advisory may improve support of the moratorium where it is needed the most (areas with clean sites), as recreational users will be more likely to abide if they know the moratorium is short-lived, that decontamination works, and that post-WNS introduction, caving restrictions will be largely seasonal focusing on minimizing disturbance to hibernating populations. Rather than perpetuating an antagonistic relationship it would be more prudent in the saturated northeast states to encourage a collaborative partnership with recreational cave users. This partnership would benefit the management of bats by increasing our ability to locate sites with surviving bats, to determine which sites are devoid of bats, and to establish site-specific management and recreational use plans, and to provide local oversight of these plans. These plans and collaborations will likely include the avoidance of winter caving at any active hibernacula and the use of light sensors at post-WNS hibernacula to verify this no disturbance policy. Based on the science of what we do know regarding WNS infections and survivors, this will provide better overall protection and management of the survivors, may improve cooperation and communication between managing agencies and this major constituency, and may improve the overall effectiveness of the main goal of the moratorium in areas considered to be the leading edge of the disease. We believe the conservation of cave-dwelling bats is best affected by stressing three actions that will minimize the impact of WNS while affording caving opportunities within the affected zone: 1. Never take potentially contaminated gear in clean zones, 2. Decontaminate gear between trips, especially in areas that are not saturated, and 3. Enter hibernacula only when necessary for conservation purposes.

1. Do people agree with the overall direction of this statement?
2. Should we post on NEBWG webpage or other method to allow for editing ?
3. What is the final purpose of this document and what do we do with this? Do we put on website for public viewing, share only with USFWS etc?