

Wayne National Forest Agency Update

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Lawrence County Mine – known Indiana bat hibernaculum in an abandoned limestone mine on the Ironton District that was confirmed WNS positive in March 2011.

2013 Observations:

- Obvious decline in bat numbers from pre-WNS (i.e., decrease can't be explained by normal fluctuations).
- Altered roosting patterns and behaviors.
- Clustering behavior (little brown bats and Indiana bats) was severely limited. The largest cluster of bats had 18, with 12 little browns and 6 Indianas. The largest pre-WNS clusters of Indiana bats contained up to 165 bats.
- In Jan: 50% of bats in coldest areas (surface temperature approximately 40°F) appeared healthy compared to almost none of bats in the warmer section called “Right Passage” (approx. 43°F).
- Bat counts were down, but few dead bats observed. Those that were found dead were still hanging from ceiling of the mine – any others were likely scavenged or died outside the mine somewhere on the landscape.
- Apparent increase in big brown, northern, and tri-colored bats is a result of WNS behavior, moving from warmer parts of the unexplored mine into the coldest section where the counts are done. Small sample sizes make even small fluctuations in the numbers of these bats appear as if they are more important than they are.

The Lawrence County Mine is one small bat hibernaculum in southern Ohio and results here should be interpreted with care. They should not be generalized to represent Ohio or the Midwest region as a whole, but rather taken together with results from other locations to begin to put together a picture of what is occurring across the region with regards to WNS and its effects on bat populations.

Mid-winter Counts (Jan 15-Feb 15)	Pre-WNS Average	WNS Decline	
Species	2007-2011	2013	% Change
Little brown (<i>Myotis lucifugus</i>)	951	213	-77.6%
Indiana (<i>Myotis sodalis</i>)	251	16	-93.6%
Tri-colored (<i>Perimyotis subflavus</i>)	121	132	9.4%
Big brown (<i>Eptesicus fuscus</i>)	4	5	25.0%
Northern (<i>Myotis septentrionalis</i>)	5	14	200.0%
Flying/Unidentified	1	0	
Total Bats	1333	380	-71.5%

-86% combined