2017 Trout Rock Bat Counts

Hamilton Cave

by Keely Owens

Hamilton Cave was counted on March 4, 2017, by Tom and Mason Griffin, Corey Hackley, and Keely Owens. We entered the cave at approximately 12:30 pm; it was a sunny day with temperatures in the high 30s.

Of note to all of the Trout Rock counts this year: while this particular day was cold, with typical late Feb/early March temperatures, the month prior to the count was highly variable, and included many unseasonably warm days. In fact, February NOAA data for nearby Elkins, West Virginia, shows 14 days with high temperatures between 55 and 77 degrees Fahrenheit, which, if comparable in Franklin (and these approximate temperatures were shared by most of the region), would indicate days where the outdoor air was warmer than the cave, and airflow would have reversed. This is likely to have impacted hibernation. Also, likely due to the record high temperatures throughout the winter, there was more insect activity visible in the area than is usual for early March.

Mason Griffin planned to use the data from the Trout Rock count to supplement a college assignment. Mason and Tom Griffin brought a black light flashlight into the cave during the count, a tool suggested at a bat-related training they had recently attended. The WNS fungus reportedly appears as a vivid yellow or orange in the black light.

Nine bats total were counted, seven of which were located in the entry section of the cave (most of them near the Register Room), and two of which were in Section 6 just before the Rosslyn Escalator. Mason and Tom also noted an additional bat, off-route, also near the Escalator (not counted because it was off-route). All bats were identified as Tricolors (formerly pipistrelles). Notably, none of the bats showed any sign of WNS when viewed with the black light flashlight. However, three bats had whitish smudges on wings and/or white around the muzzle that looked like WNS when viewed under normal light - and in previous years, would have been noted as such in the count notes. It is possible that in the past we have been over-identifying WNS-positive bats. Alternatively, the smudging visible on the wings and face may have been scarring or damage from WNS, rather than active fungal culture, and therefore still be a good indicator of a WNS positive bat even though there was no fungus to react to the black light. Since bats have most likely already been awake and grooming this season, the active cultures of fungus on the bats may have been previously present, but now groomed away.

In the final room on the count - the 'Old Room' - there were a large number of bat bones which could be very clearly seen using the black light. Not easily identifiable under normal light, these bones glowed yellow under the black light and a great number of them were visible. There was no way to tell how old they were, but decomposition was complete and in many places the bones were broken and scattered. No other room had this concentration of bones.

With the count finished, we exited the cave at 4:30 pm. There were a large number of people at the preserve and in the parking area, however our group was the only group to enter Hamilton Cave.

New Trout Cave

by Dave West

New Trout Cave was counted on March 4, 2017, by Dave West, Karen Willmes, Kevin Oxenrider (WV Division of Natural Resources), and Earl Suitor. There were a total of 30 bats counted along the traditional sampling route. This is down somewhat from last year's 38 bats, but consistent with the long term average.

Among the 10 bats counted in the long Entrance Passage were two Tricolored bats, one of which had signs of apparent WNS. This is the first known occurrence of WNS in New Trout Cave. A wood rat was also observed in its nest in the entrance passage. (An occupied nest was observed in the same area in 2013).

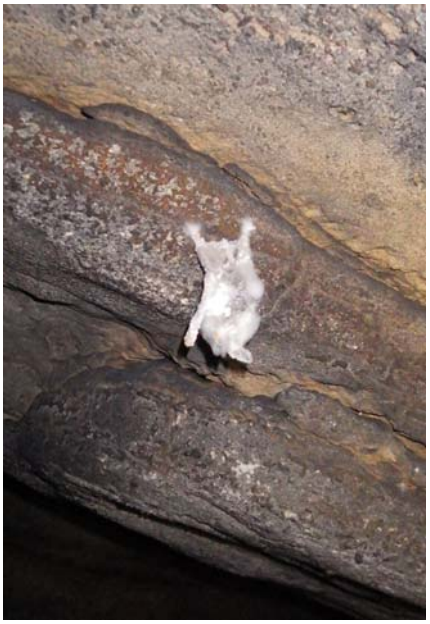
In the First Room there was one bat. Kevin Oxenrider and I were not in agreement on this bat. He is reporting it as a Small Footed based upon its robber mask. I believe it is a Northern Long Ear based upon its ears. Northerns also have a robber mask. The difference I was taught while doing bat counts with the Cave Research Foundation in Missouri is that the Small Footed has ears splayed to the side < > while Northerns have ears that stick straight up ^ ^. We were in agreement that this individual had ears that were straight up. All other bats we identified as small footed had ears splayed to the side, with the possible exception of one that jammed so tightly in a crack, we couldn't see much more than one wing arm. Actually, Northerns also like to jam into cracks, so that one should possibly also be an unidentified myotis. In any case, the DNR count shows our bat as a Small Footed and my report considers it a Northern.

Trout Cave

by Earl Suitor

Trout Cave was counted on March 3, 2017, by Craig Stihler, Jack Wallace (both from WV Division of Natural Resources), Barbara Douglas (U.S. Fish & Wildlife Service), and Earl Suitor. A total of 90 bats, including 67 Indianas, were counted. Both figures reflect the continued slow decline since WNS came to West Virginia in 2009. However, there are still more Indiana bats than the average of about 20 seen prior to the unexplained increase in 2005.

Five dead Virginia Big-Eared bats were found near the Clinometer Anomaly Room, about 3/4 of the way between the entrance and the end of the bat count area at the Square Room. The bats were sent for necropsy by Craig Stihler. All were covered in white fungus.



Fungus-covered dead bat found clinging to the wall during the 2017 bat count in Trout Cave. Photo by Earl Suitor

2017 Trout Rock Bat Counts

TROUT CAVE – 2017

Area	Tri Color	Big Brown	Small Footed	Little Brown	Va. Big Ear	Northern Long Ear	Indiana	Total
Entrance area	2	3		2				7
Side Passage					1			1
Trunk Split to 8-Ft Drop	5	1			1		67	74
8-Ft Drop to Register Rm	1							1
Maze Area	1							1
Reg. Rm to End of Trunk	1							1
End of Trunk to Sq Room	5							5
Square Room								0
TOTAL	15	4	0	2	2	0	67	90

NEW TROUT CAVE – 2017

Area	Tri color	Big Brown	Small Footed	Little Brown	Va. Big Ear	Indiana	Northern Long Ear	Total
Entrance Passage	2	4	1		3			10
First Room							1	1
1st to 2nd Room		1	1					2
Second Room			3			1		4
Bone Site								0
Big Room	1	1	1	3		7		13
TOTAL	3	6	6	3	3	8	1	30

Note: One Tricolor bat in the entrance passage showed WNS symptoms

HAMILTON CAVE – 2017

Area	Tri color	Little Brown	Va. Big Ear	Northern Long Ear	Total
Entrance to U-survey	7				7
U-Survey					0
Big Slab Room					0
Mud Ball Room					0
Big Slab Room to C-12					0
C12 to Roselyn Escalator					0
Below Roselyn. Escalator.					0
Ros. Esc. to Pre-Old Room	2				2
Pre-Old Room					0
Old Room					0
TOTAL	9	0	0	0	9

TOTAL COUNTS BY YEAR

Year	Trout		New Trout	Hamilton
	Indiana	Total	Total	Total
1982	1(?)	1(?)	22	no count
1983	21	763	10	no count
1984	14	567	no count	32
1985	2	663	21	55
1986	no count		32	58
1987	14	962	43	101
1988	no count		44	114
1989	19	779	37	105
1990	no count		56	90
1991	10	564	37	106
1992	no count		41	161
1993	12	482	43	190
1994	no count		39	207
1995	26	593	61	273
1996	no count		58	316
1997	24	779	60	360
1998	no count		51	292
1999	19	584	29	381
2000	no count		30	547
2001	24	621	29	480
2002	no count		22	373
2003	25	465	48	361
2004	no count		29	364
2005	95	841	42	562
2006	93	—	22	513
2007	158	764	48	480
2008	no count		27	340
2009	139	543	48	473
2010	82	—	68	30
2011	90	177	40	3
2012	no count		33	3
2013	79	135	30	5
2014	no count		28	5
2015	94	130	37	5
2016	no count		38	5
2017	67	90	30	9

Note: a partial count was done in Trout in 2006 and 2010. Only the Indiana bat population was counted.