

2007 BCI Acoustic Monitoring Workshop – Mammoth Cave, KY

KY: Edmonson, Barren, and Hart Counties

Summary of Capture Data

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Day 01: 12 September 2007
Location #1: Mammoth Cave National Park, Historic Entrance. Start Time: 1940, End Time: 2350; Start Temp: 54.9°F, End Temp: 54.9°F.
GPS (NAD27): 37°11'14.4"N; 086°06'13.6"W
Site #1: One 6-meter net set in front of gate.

<i>Eptesicus fuscus</i> , big brown bat		4 (2 females (1a-pl, 1a-nr))
<i>Pipistrellus subflavus</i> , eastern pipistrelle		9 (2 females (1pl, 1nr), 6 males (5a-nr, 1j-nr), 1 unk)
	Total species =	2
	Total individuals =	13

Location #2: Mammoth Cave National Park, Dixon Cave. Start Time: 1900, End Time: 2430; Start Temp: 64°F, End Temp: 56°F.
GPS (NAD27): 37°11'14.4"N; 086°06'13.6"W
Site #1: One 12-meter mist net sent just back behind perimeter fence in front of sinkhole.

<i>Eptesicus fuscus</i> , big brown bat		1 male (j-nr)
<i>Myotis grisescens</i> , gray myotis		3 (1 female (j-nr), 2 males (j-nr))
<i>Myotis lucifugus</i> , little brown myotis		7 males (j-nr)
<i>Myotis septentrionalis</i> , northern long-eared myotis		1 male (j-nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle		3 males (j-nr)
	Total species =	5
	Total individuals =	15

Site #2: Two 12-meter mist nets set end-to-end along trail about 25-meters before cave entrance.

<i>Myotis septentrionalis</i> , northern long-eared myotis		1 male (j-nr)
	Total species =	1
	Total individuals =	1

Site #3: One Large Harp Trap set in front of cave gate.

	Total species =	0
	Total individuals =	0

Location #3: Mammoth Cave National Park, along forested trail leading from Historic Entrance to Green River and River Styx. Start Time: 1935, End Time: 2315; Start Temp: 65.3°F, End Temp: 55.4°F.
GPS (NAD27): 37°11'15.3"N; 086°06'34.1"W
Site #1: One triple-high 6-meter mist net set over trail, under vegetation about 100 yards from trails end.

<i>Lasiurus borealis</i> , red bat		1 unknown
<i>Lasiurus seminolus</i> , Seminole bat		1 male (a-nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle		1 unknown
	Total species =	3
	Total individuals =	3

Site #2: One triple-high 6-meter mist net set over trail, under vegetation about 50 yards down from Site #1.

<i>Lasiurus borealis</i> , red bat		1 female (a-nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle		1 male (a-nr)
	Total species =	2
	Total individuals =	2

Site #3: One triple-high 9-meter mist net set over trail, under vegetation right at junction of trail end at Green River, trail to River Styx boardwalk, and trail up stream along Green River.

<i>Lasiurus borealis</i> , red bat		15 (2 females (a-nr), 11 males (5 a (4nr, 1u), 2 unk)
<i>Nycticeius humeralis</i> , evening bat		1 male (a-nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle		7 males (a-nr)
	Total species =	3
	Total individuals =	23

f = female, m = male, a = adult, j = juvenile

p = pregnant, l = lactating, pl = post-lactating, nr = non-reproductive, s = scrotal, u = unknown
unless otherwise noted, all bats are assumed adult and males are assumed to be non-reproductive

Site #4: One triple-high 9-meter mist net set over trail, under vegetation right in front of trails end at Green River.

<i>Corynorhinus rafinesquii</i> , Rafinesque's big-eared bat	1 female (a-nr)
<i>Nycticeius humeralis</i> , evening bat	1 male (a-nr)
<i>Total species</i>	= 2
<i>Total individuals</i>	= 2

Site #5: One 6-meter mist net set over trail, under vegetation along trail upstream from Green River.

<i>Myotis septentrionalis</i> , northern long-eared myotis	2 females (1a-nr, 1j-nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle	1 male (j-nr)
<i>Total species</i>	= 2
<i>Total individuals</i>	= 3
Grand Total Species	= 9
Grand Total Individuals	= 62

Day 02: 13 September 2007

Location #1: Mammoth Cave National Park, Wondering Woods.

GPS (NAD27): 37°07'52.8"N; 086°03'43.4"W

Site #1: Two triple-high 6-meter nets set parallel about 50-meters apart under tree canopy along entrance road closest to the gate. Start Time: 1905, End Time: 2130. Start Temp: 70.7°F End Temp: 66.9°F.

<i>Lasiurus borealis</i> , red bat	1 male (a-nr)
<i>Glaucomys volans</i> , Kentucky flying squirrel	1 unknown
<i>Total species</i>	= 1
<i>Total individuals</i>	= 1

Site #2: One triple-high 9-meter net set under tree cover at fork in the road leading up to the abandoned cathedral, plus two triple-high 6 meter nets set parallel about 25 meters apart under tree cover along road to the cathedral, plus one 6-meter single-high net set under and between vegetation along first triple-high. Start Time: 1900, End Time: 2200. Start Temp: 70.7°F End Temp: 66.9°F.

<i>Total species</i>	= 0
<i>Total individuals</i>	= 0

Site #3: Two triple-high 6-meter nets set parallel about 30-meters apart under tree cover along road behind *Corynorhinus* towers under overhanging vegetation. Start Time: 1910, End Time 2330. Start Temp: 73°F, End Temp: 66.9°F.

<i>Corynorhinus rafinesquii</i> , Rafinesque's big-eared bat	2 (1 female (a-nr), 1 male (a-nr))
<i>Total species</i>	= 1
<i>Total individuals</i>	= 1

Site #4: One 12-meter net, plus one 20-meter net, plus a 6-meter net and a 12-meter net set end-to-end all in a parallel configuration about 10-meters apart across the middle of a large, long, shallow, muddy pond about 20-meters by 60-meters with a swoop zone of 50x150-meters.

<i>Corynorhinus rafinesquii</i> , Rafinesque's big-eared bat	2 males (a-nr)
<i>Eptesicus fuscus</i> , big brown bat	2 (1 female (a-nr), 1 male (a-nr))
<i>Lasiurus borealis</i> , red bat	15 (5 females (a-nr), 10 males (a-nr))
<i>Myotis grisescens</i> , gray myotis	2 (1 female (a-nr), 1 male (a-nr))
<i>Myotis septentrionalis</i> , northern long-eared myotis	7 (3 females (a-nr), 4 males (a-nr))
<i>Pipistrellus subflavus</i> , eastern pipistrelle	7 (4 females (a-nr), 3 males (a-nr))
<i>Total species</i>	= 6
<i>Total individuals</i>	= 35

Location #2: Park Mammoth, Coach Cave. Start Time: 1930, End Time: 2100. Start Temp: N/A End Temp: N/A

GPS (NAD27): m

Site #1: One 6-meter net set in front of and running parallel to the berm surrounding Coach Cave entrance.

<i>Myotis grisescens</i> , gray myotis	6 males
<i>Total species</i>	= 1
<i>Total individuals</i>	= 6
Grand Total Species	= 6
Grand Total Individuals	= 45

f = female, m = male, a = adult, j = juvenile

p = pregnant, l = lactating, pl = post-lactating, nr = non-reproductive, s = scrotal, unk = unknown
unless otherwise noted, all bats are assumed adult and males are assumed to be non-reproductive

Day 03: 14 September 2007
 Location #1: Mammoth Cave National Park, forest and riparian resources near Good Spring Church. Start Time: 1915, End Time: 2345. Start Temp: 72°F, End Temp: 65.8°F.
 GPS (NAD27): 37°12'30.5"N; 086°8'51.7"W
 Site #1: Two 12-meter nets and one 9-meter net set in a V-formation over small pool in creek about 100-meters down the Good Spring trail.

Lasiurus borealis, red bat 3 (1 female (j-nr), 2 males (1j-nr, 1j-s))
Total species = 1
Total individuals = 3

Site #2: One 9-meter net set across small pool in creek about 100-meters further down trail from Site #1 at the location of the second creek crossing.

Corynorhinus rafinesquii, Rafinesque's big-eared bat 1 female (a-pl)
Lasiurus borealis, red bat 1 male (j-nr)
Myotis septentrionalis, northern long-eared myotis 2 males (1a-nr, 1j-nr)
Total species = 3
Total individuals = 4

Site #3: One large harp trap set over water and between and under vegetation about 100-meters further down trail at second creek crossing, just down stream from site #2.

Lasiurus borealis, red bat 1 male (a-nr)
Myotis septentrionalis, northern long-eared myotis 4 (2 females (a-pl), 2males (j-nr))
Total species = 2
Total individuals = 5

Location #2: Mammoth Cave National Park forest and riparian resources along Mill Branch about 150-meters upstream from where creek crosses Maple Springs Loop Road. Start Time: 1915, End Time: 2345. Start Temp: 72°F, End Temp: 65.8°F.

GPS (NAD27): 37°12'44.7"N; 86°8'19.6"W
 Site #1: One 2.6-meter net set over small (1.5 meter diameter) still pool in creek behind trunk of leaning tree.

Myotis septentrionalis, northern long-eared myotis 1 male (a-nr)
Total species = 1
Total individuals = 1

Site #2: One 6-meter net set over two small (1-meter diameter) still pools in creek about 25-meters upstream from Site #1.

Corynorhinus rafinesquii, Rafinesque's big-eared bat 1 male (a-nr)
Lasiurus borealis, red bat 5 (3 females (1a-nr, 2j-nr), 2 males (a-nr))
Myotis septentrionalis, northern long-eared myotis 12 (5 females (a-nr), 7 males (a-nr))
Pipistrellus subflavus, eastern pipistrelle 1 male (a-nr)
Total species = 4
Total individuals = 19

Site #3: One 6-meter net set over a small (1x2-meter) pool in creek about 10-meters upstream from Site #2.

Myotis septentrionalis, northern long-eared myotis 4 (2 females (a-nr), 2 males (a-nr))
Total species = 1
Total individuals = 4

Site #4: One 6-meter net set over a small 2x4-meter pool in creek about 5-meters upstream from site #3.

Lasiurus borealis, red bat 4 (1 female (a-nr), 3 males (a-nr))
Myotis septentrionalis, northern long-eared myotis 3 (1 female (a-nr), 2 males (a-nr))
Total species = 2
Total individuals = 7

Location #3: Mammoth Cave National Park forest and riparian resources along the Raymer Hollow trail at crest of hill and further down where trail crosses creek. Start Time: 1915, End Time: 2345. Start Temp: 72°F, End Temp: 65.8°F.

GPS (NAD27): 37°12'44.7"N; 86°8'19.6"W

Site #1: One triple-high 6-meter net and one triple-high 12-meter net set parallel about 10-meters apart at crest of hill over roadway and under overhanging vegetation leading from gate plus one triple-high 9-meter net set over creek crossing around bend and at the bottom of the hill, and one 2.6 meter net set over 2-meter wide still pool in creek.

Lasiurus borealis, red bat 8 (2 females (1a-nr, 1j-nr), 4 males (a-nr), 2 unknown)

<i>Total species</i>	=	1
<i>Total individuals</i>	=	8
Grand Total Species	=	4
Grand Total Individuals	=	51

Day 04: 15 September 2007

Location #1: Mammoth Cave National Park forest and riparian resources near Echo River Springs Start Time: 1915, End Time: 2200. Start Temp: 57.9°F, End Temp: 50.2°F.

GPS (NAD27): 37°10'44.4"N; 086°06'31.0"W

Site #1: Seven 12-meter nets strung end to end along steep embankment leading down to Echo River Springs.

Corynorhinus rafinesquii, Rafinesque's big-eared bat 2 males (a-nr)

Lasionycteris noctivagans, silver-haired bat 1 male (a-nr)

Lasiurus borealis, red bat 4 (1 female (a-nr), 2 males (a-nr), 1 unknown)

Myotis septentrionalis, northern long-eared myotis 17 (4 females (1nr, 2pl, 1j-nr), 13 males (11nr, 2s))

Pipistrellus subflavus, eastern pipistrelle 1 male (a-nr) –mortality; tested positive for rabies

<i>Total species</i>	=	5
<i>Total individuals</i>	=	25

Site #2: One triple-high 6 meter net and one triple-high 9-meter net set parallel to each other on either side of bend in Echo river as it leaves the spring and flows into the Green River and one 2.6-meter net set in breach of sink-hole entrance of spring.

Lasionycteris noctivagans, silver-haired bat 2 males (a-nr)

Lasiurus borealis, red bat 2 males (a-nr)

Myotis grisescens, gray myotis 1 male (a-nr)

Nycticeius humeralis, evening bat 4 males (a-nr)

<i>Total species</i>	=	4
<i>Total individuals</i>	=	9
Grand Total Species	=	7
Grand Total Individuals	=	34

Summary of Capture Results – Session I: 12-15 August 2007

Three 2.6-meter mist nets, Eight 6-meter mist nets, Two 9-meter mist nets, Fourteen 12-meter mist nets, One 20-meter net, Ten triple-high 6-meter mist nets, Five triple-high 9-meter mist nets, One triple-high 12-meter net, and Two harp traps
(Total net/hrs = 170.76)

Corynorhinus rafinesquii, Rafinesque's big-eared bat 9 (3 females (2nr, 1pl), 6 males (nr))

Eptesicus fuscus, big brown bat 7 (3 females (2nr, 1pl), 4 males (3a (2nr, 1s), 1j (nr)))

Lasionycteris noctivagans, silver-haired bat 3 males (a-nr)

Lasiurus borealis, red bat 61 (16 f (12a-nr, 4j-nr), 39 m (30a, 6j (1nr, 1s), 6 unk))

Lasiurus seminolus, Seminole bat 1 male (a-nr)

Myotis grisescens, gray myotis 12 (2 females (1a-nr, 1j-nr), 10 males (8a-nr, 2j-nr))

Myotis lucifugus, little brown myotis 7 males (j-nr)

Myotis septentrionalis, northern myotis 54 (19 f (13nr, 4pl, 2j-nr), 35 m (28nr, 2s, 5j-nr))

Nycticeius humeralis, evening bat 6 males (a-nr)

Pipistrellus subflavus, eastern pipistrelle 31 (6 females (5nr, 1pl), 23 males (18a-nr, 5j-nr))

Total Species	=	10
Total Individuals	=	191

f = female, m = male, a = adult, j = juvenile
p = pregnant, l = lactating, pl = post-lactating, nr = non-reproductive, s = scrotal, unk = unknown
unless otherwise noted, all bats are assumed adult and males are assumed to be non-reproductive