

BCI Bat Conservation and Management Workshop
Carter Caves State Resort Park (CCSRP), Carter County KY
 September 11-16, 2011
 Summary of **Capture** and **Acoustic** Data

J.Tyburec/BCI

Pre-Course: 11 September 2011

Acoustic #1: CCSR, Smokey Bridge, behind Carter Caves Lodge
 Site #1: One Pettersson D500x (InputGain=80, TrigLev=80, Interval=0) set passively about 7-feet up a tree in open edge habitat, along trail in front of natural arch. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

Start Time: 2115 End Time: 2400
 Start Temp: 79°F End Temp: 67°F, clear skies, no wind
 Lat/Long: 38° 22' 07.62"N; 83° 07' 30.53"W

<i>Lasiurus borealis</i> , red bat		1 recording
<i>Myotis lucifugus</i> , little brown myotis		2 recordings
40kHz myotis, unknown myotis (ambiguous)		11 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)		1 recording
Unknown/Fragmentary calls, unidentifiable/ambiguous		3 recordings
Total species	=	3
Total recordings	=	17

Day 01: 12 September 2011

Acoustic #1: CCSR, One Pettersson D240x (Gain=high, Trigger=HF, RecLen=1.7s) used actively at edge of Smokey Valley Lake at dusk to record free-flying bats observed and identified by sight.

Start Time: 2000 End Time: 2015
 Start Temp: End Temp:
 Lat/Long: 38° 22' 02"N; 83° 07' 31.25"W

<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)		4 recordings
Total species	=	1
Total recordings	=	4

Day 02: 13 September 2011

Location #1: CCSR, Lodge Road, between RV campground and Pool/Clubhouse
 Site #1: Two 12m (42-foot) 3H mist nets set in a rough V-formation over road and under overhanging trees, and one 6m (18-foot) single-high mist net over horse-trail to the east of the road, and one 9m (30-foot) single-high and one 6m (18-foot) single-high mist net set in a L-formation over horse trail just south of first single-high.

Start Time: 2000 End Time: 2330
 Start Temp: 82°F End Temp: 69.1°F
 Lat/Long: 38° 22' 07.17"N; 83° 07' 41"W

<i>Myotis septentrionalis</i> , northern long-eared myotis		1 female (a, pl)
<i>Myotis sodalis</i> , Indiana myotis		1 males (j, nr)
Total species	=	2
Total individuals	=	2

Location #2: CCSR, Single-lane road off Lodge Road near pool/clubhouse down to boat ramp at Smokey Valley Lake.

Site #1: One 9m (30-foot) 3H mist net, and one 12m (42-foot) 3H mist net set over road and ravine to the east, with one 12m (60-foot) single-high mist net from the second 3H mist net, diagonally across the road towards the first 3H mist net.

Start Time: 2000 End Time: 2345
 Start Temp: 73.4°F End Temp: 64.4°F
 Lat/Long: 38° 22' 05"N; 83° 07' 47"W

<i>Myotis septentrionalis</i> , northern long-eared myotis		3 (2 males (a, nr), 1 unknown – escaped)
Total species	=	1
Total individuals	=	3

a = adult, j = juvenile; nr = non-reproductive, p = pregnant, l = lactating, pl = post lactating, s = scrotal
 unless otherwise noted, assume all bats are adult/non-reproductive

Acoustic #1: One Pettersson D240x (Gain=high, Trigger=HF, RecLen=1.7) used actively to record free-flying and hand-released bats near Netting Location #2 above.

Start Time: 2000 End Time: 2300
 Start Temp: 82F End Temp: 65F
 Lat/Long: 38° 22' 05"N; 83° 07' 47"W

40kHz *myotis*, unknown *myotis* 3 recordings (free-flying)
Myotis sodalis, Indiana *myotis* 1 recording (hand release)
 Total species = 2
 Total recordings = 4

Acoustic #2: One Wildlife Acoustics, SM2-192 detector set passively to record free-flying bats between net Locations #2 and #1. Placed about 6-feet up tree on edge of widest spot of road near curve in high-clutter, edge habitat. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

Start Time: 2200 End Time: 2330
 Start Temp: 68F End Temp: 64F
 Lat/Long: 38° 22' 05"N; 83° 07' 47"W

Corynorhinus rafinesquii, Rafinesque's big-eared bat 1 recording
Myotis leibii, eastern small-footed *myotis* 1 recording
 40kHz *myotis*, unknown *myotis* 10 recordings
 Unknown/Fragmentary Calls, unidentifiable/ambiguous 7 recordings
 Total species = 3
 Total recordings = 19

Location #3: Single-track dirt road east of boat ramp at Smokey Valley Lake, along lakefront, under trees.
 Site #1: One 6m (18-foot) single high mist net and one 9m (30-foot) single high mist net in a L-formation near head of trail nearest boat ramp, and one 6m (18-foot) single high mist net and one 9m (30-foot) single high mist net set in a V formation just down the road from the first set, and one 9m (30-foot) single high mist net set across road under large leaning oak tree down from the second set.

Start Time: 2000 End Time: 2345
 Start Temp: 73.4°F End Temp: 64.4°F
 Lat/Long: 38° 22' 05"N; 83° 07' 47"W

Total species = 0
 Total individuals = 0

Acoustic #3: One Pettersson D500x (InputGain=80, TrigLev=80, Interval=0) set passively about 7-feet up a tree in cluttered, edge habitat, along trail paralleling Smokey Lake from boat ramp to dock. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

Start Time: 2000 End Time: 2400
 Start Temp: 73.4°F End Temp: 64.4°F, clear skies, no wind
 Lat/Long: 38° 22' 05"N; 83° 07' 47"W

Lasiurus borealis/*Pipistrellus subflavus*, ambiguous 13 recordings
 40kHz *myotis*, unknown *myotis* 4 recordings
Pipistrellus subflavus, eastern pipistrelle (tri-colored bat) 4 recordings
 Unknown/Fragmentary calls, unidentifiable/ambiguous 13 recordings
 Total species = 3
 Total recordings = 34

Day 03: 14 September 2011

Location #1: CCSRP, Cave Branch Creek near Laurel Cave entrance and downstream to park entrance.

Start Time: 1945 End Time: 2330
 Start Temp: 70.5°F End Temp: 66.9°F
 Lat/Long: 38° 22' 29"N; 83° 06' 55"W

Site #1: One 6m (18-foot) mist net under foot bridge leading to Laurel Cave and over Cave Branch Creek and one 9m (30-foot) mist net on top of foot bridge leading to Laure Cave, plus one 6m (18-foot) mist net set roughly perpendicular to mist net on bridge, forming an L, across trail to foot bridge.

Lasiurus borealis, red bat 3 (2 females (a, nr); 1 male (a, s))
Myotis lucifugus, little brown *myotis* 3 (1 female (a, nr); 2 males (1a, s; 1a, nr))
Myotis sodalis, Indiana *myotis* 2 males (1a, s; 1a, nr)
 Unknown bat, escaped net before identification 1 unknown
 Total species = 3
 Total individuals = 9

a = adult, j = juvenile; nr = non-reproductive, p = pregnant, l = lactating, pl = post lactating, s = scrotal
 unless otherwise noted, assume all bats are adult/non-reproductive

Site #2: One 9m (30-foot) 3H mist net set about 50-yards upstream from Site #1, over water in Cave Branch Creek and between and under encroaching and overhanging vegetation.

Start Time: 1945 End Time: 2330
 Start Temp: 70.5°F End Temp: 66.9°F
 Lat/Long: 38° 22' 29"N; 83° 06' 59"W

<i>Eptesicus fuscus</i> , big brown bat	1 male (a, s)
<i>Lasiurus borealis</i> , red bat	7 (2 females (a, nr); 4 males (3a,nr; 1a,s); 1 unknown)
<i>Myotis lucifugus</i> , little brown myotis	1 male (a, s)
<i>Myotis septentrionalis</i> , northern long-eared myotis	2 males (1a, s; 1a, nr)
<i>Myotis sodalis</i> , Indiana myotis	1 female (a, nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)	2 (1 female (a, nr); 1 male (a, nr))
Total species	= 6
Total individuals	= 14

Location #2: CCSRP, Cave Branch Creek about 1/4-mile downstream from Laurel Cave entrance.

Start Time: 1945 End Time: 2330
 Start Temp: 70.5°F End Temp: 66.9°F
 Lat/Long: 38° 22' 29"N; 83° 06' 59"W

Site #1: One 12-m (42-foot) 3H mist net set over Cave Branch Creek high on bank, between and under encroaching and overhanging vegetation and one 6-m (18-foot) mist net set parallel, right at creek level over water, beside and filling gap under 3H net.

<i>Glaucomys volans</i> , southern flying squirrel	1 unknown
<i>Lasiurus borealis</i> , red bat	3 (2 males (j, nr); 1 unknown)
<i>Myotis lucifugus</i> , little brown myotis	1 male (a, nr)
<i>Myotis sodalis</i> , Indiana myotis	1 male (a, nr)
<i>Pipistrellus subflavus</i> , eastern pipistrelle	1 male (a, nr)
Total species	= 4 bats, 5 mammals
Total individuals	= 6 bats, 7 mammals

Site #2: One 9-m (30-foot) mist net set downstream from Site #1 over water near large sycamore tree.

<i>Eptesicus fuscus</i> , big brown bat	1 male (j, nr)
<i>Lasiurus borealis</i> , red bat	1 male (a, nr)
Total species	= 2
Total individuals	= 2

Site #3: One 9-m (30-foot) 2H mist net set just downstream from Site #2, over water, between and under encroaching and overhanging vegetation.

<i>Lasiurus borealis</i> , red bat	2 males (1a, nr; 1j, nr)
Total species	= 1
Total individuals	= 2

Acoustic #1: CCSRP, Cave Branch Creek, between Location #2 above and Location #3 below.

Start Time: 1930 End Time: 2400
 Start Temp: 70°F End Temp: 67°F, breezy conditions, storms in vicinity, but no precipitation on site
 Lat/Long: 38° 22' 23"N; 83° 06' 48"W
 Site#1: One Pettersson D500x (InputGain=80, TrigLev=80, Interval=0), set passively with external microphone about 7-feet above ground, near trees between road and creek bed in medium clutter, edge habitat. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburnec.

<i>Eptesicus fuscus</i> , big brown bat	2 recordings
<i>Eptesicus fuscus/Lasiurus cinereus</i> , ambiguous	1 recording
<i>Eptesicus fuscus/Lasionycteris noctivagans</i> , ambiguous	2 recordings
<i>Lasiurus borealis</i> , red bat	20 recordings
<i>Lasiurus borealis/Pipistrellus subflavus</i> , ambiguous	6 recordings
<i>Lasiurus cinereus</i> , hoary bat	5 recordings
<i>Lasiurus intermedius</i> , northern yellow bat	1 recording
<i>Myotis lucifugus</i> , little brown myotis	13 recordings
<i>Myotis lucifugus/Myotis sodalis</i> , ambiguous	33 recordings
<i>Myotis septentrionalis</i> , northern long-eared myotis	2 recordings
<i>Myotis sodalis</i> , Indiana myotis	2 recordings
40kHz myotis, ambiguous myotis	20 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)	11 recordings

a = adult, j = juvenile; nr = non-reproductive, p = pregnant, l = lactating, pl = post lactating, s = scrotal
 unless otherwise noted, assume all bats are adult/non-reproductive

Unknown/Fragmentary calls, unidentifiable/ambiguous 14 recordings
 Total species = 8
 Total recordings = 132

Acoustic #2: CCSRP, Cave Branch Creek, between Location #2 above and Location #3 below.
 Start Time: 2000 End Time: 2015 (detector malfunctioned and shut itself off after 15-minutes)
 Start Temp: 70°F End Temp: 70°F, breezy conditions, storms in vicinity, but no precipitation on site
 Lat/Long: 38° 22' 23"N; 83° 06' 48"W
 Site#2: One Wildlife Acoustics EM3 (default settings) set passively near Acoustic #1. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

Lasiurus borealis/Pipistrellus subflavus, ambiguous 1 recording
40kHz myotis, ambiguous myotis 1 recording
Unknown/Fragmentary calls, unidentifiable/ambiguous 3 recordings
 Total species = 3
 Total recordings = 5

Location #3: CCSRP, Cave Branch Creek, downstream from Location #2, near Park Entrance.
 Start Time: 1945 End Time: 2330
 Start Temp: 71.6°F End Temp: 66.2°F
 Lat/Long: 38° 22' 23"N; 83° 06' 48"W
 Site#1: One 9-m (30-foot) single high mist net set over water in Cave Branch Creek, between and under encroaching and overhanging vegetation.

Total species = 0
 Total individuals = 0

Site #2: One 12-m (42-foot) 3H mist net and one 18-m (60-foot) single high mist net set in a V-formation over water in Cave Branch Creek, between and under encroaching and overhanging vegetation, just downstream from Site#1.

Eptesicus fuscus, big brown bat 1 male (a, s)
Myotis lucifugus, little brown myotis 1 male (a, s)
 Total species = 2
 Total individuals = 2

Site #3: One 9-m (30-foot) 3H mist net set over water in Cave Branch Creek, between and under encroaching and overhanging vegetation, just downstream from Site #2.

Lasiurus borealis, red bat 3 (2 males (1a, s; 1a, nr); 1 unknown)
Myotis lucifugus, little brown myotis 1 female (a, nr)
 Total species = 2
 Total individuals = 4

Day 04: 15 September 2011

Location #1: Tygart Creek, just upstream from State Highway 182 bridge.
 Start Time: 1945 End Time: 2200
 Start Temp: 57°F End Temp: 50°F
 Lat/Long: 38° 22' 04"N; 83° 06' 32"W
 Site #1: Two 12-m (42-foot) 3H mist nets set with two 18-m (60-foot) single-high mist nets in a staggered roughly parallel fashion, over creek between and under encroaching and overhanging vegetation.

Myotis lucifugus, little brown myotis 2 males (1a, s; 1j, nr)
Myotis sodalis, Indiana myotis 1 male (a, s)
Pipistrellus subflavus, eastern pipistrelle 3 males (1a, nr; 2a, s)
 Total species = 3
 Total individuals = 6

Location #2: Tygart Creek, just upstream from State Highway 182 bridge along Cave Branch Creek confluence.
 Start Time: 1930 End Time: 2200
 Start Temp: 55.5°F End Temp: 50°F
 Lat/Long: 38° 22' 04"N; 83° 06' 32"W
 Site #1: One 9-m (30-foot) single high mist net set over Cave Branch Creek confluence with Tygart Creek and one 6-m (18-foot) 3H mist net set in a V-formation with a 18-m (60-foot) single high mist net parallel to first net, and one 9-m (30-foot) single high mist net set parallel to V-set.

Total species = 0
 Total individuals = 0

a = adult, j = juvenile; nr = non-reproductive, p = pregnant, l = lactating, pl = post lactating, s = scrotal
 unless otherwise noted, assume all bats are adult/non-reproductive

Acoustic #1: State Highway 182, just north of bridge over Tygart Creek.
 Start Time: 1930 End Time: 2130
 Start Temp: 55°F End Temp: 50°F
 Lat/Long: 38° 22' 03.5"N; 83° 06' 31"W
 Site #1: One Pettersson D500x (InputGain=80, TrigLev=80, Interval=0) with external microphone set passively along side of road, with microphone about 5-feet of ground, oriented towards open, edge forested habitat along road. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

<i>Myotis lucifugus</i> , little brown myotis	3 recordings
<i>Myotis lucifugus/Myotis sodalis</i> , ambiguous	2 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)	4 recordings
Total species =	3
Total recordings =	9

Acoustic #2: Bridge on State Highway 182, over Tygart Creek.
 Start Time: 2000 End Time: 2215
 Start Temp: 55°F End Temp: 50°F
 Lat/Long: 38° 22' 01"N; 83° 06' 31"W
 Site #1: One Wildlife Acoustics EM3 (default settings) set passively along railing of bridge, pointing downstream in wide-open riparian habitat about 30-feet above water. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

<i>Lasiurus borealis</i> , red bat	22 recordings
<i>Lasiurus borealis/Myotis lucifugus</i> , ambiguous	107 recordings
<i>Lasiurus borealis/Pipistrellus subflavus</i> , ambiguous	23 recordings
<i>Myotis grisescens</i> , gray myotis	11 recordings
<i>Myotis lucifugus</i> , little brown myotis	158 recordings
<i>Myotis lucifugus/Myotis sodalis</i> , ambiguous	93 recordings
40kHz <i>myotis</i> , unknown myotis	554 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)	63 recordings
Unknown/Fragmentary calls, unidentifiable/ambiguous	173 recordings
Total species =	4
Total recordings =	1,204

Location #3: Forest road paralleling Tygart Creek, downstream from State Highway 182 Bridge over Creek,
 Start Time: 1945 End Time: 2200
 Start Temp: 53°F End Temp: 48.2°F
 Lat/Long: 38° 22' 01"N; 83° 06' 31"W
 Site #1: One 6-m (18-foot) single high mist net set nearest to gate, plus one 12-m (42-foot) 3H mist net and one 18-m (60-foot) single high mist net set in a V-formation just down the road from first net, plus two 6-m (18-foot) single high mist nets set parallel and down the road from the V-net.

<i>Glaucomys volans</i> , southern flying squirrel	1 unknown
Total species =	1
Total individuals =	1

Day 05: 16 September 2011

Location #1: Cave Branch Creek locations behind visitor's center, near picnic pavilion along trail to Bat Cave and Natural Bridge.
 Start Time: 2000 End Time: 2300
 Start Temp: 56.2°F End Temp: 49.1°F
 Lat/Long: 38° 22' 41"N; 83° 07' 28"W
 Site #1: One 9-m (30-foot) single-high mist net set in V-configuration with a 12-m (42-foot) 3H mist net over creek near downstream side of bridge at pavilion, and one 9-m (30-foot) single high mist net set on upstream side of bridge, plus one 12-m (42-foot) 3H mist net set in a V-configuration with an 18-m (60-foot) single-high mist net just upstream from bridge.

<i>Lasiurus borealis</i> , red bat	3 (1 male (j, nr); 2 unknown)
Total species =	1
Total individuals =	3

Acoustic #1: Cave Branch Creek between netting Locations #1 and #2.
 Start Time: 1930 End Time: 2400
 Start Temp: 53°F End Temp: 50°F
 Lat/Long: 38° 22' 03.5"N; 83° 06' 31"W
 Site #1: One Pettersson D500x (InputGain=80, TrigLev=80, Interval=0) set passively about 6-feet up a tree, overlooking creek, towards downstream end of Natural Bridge opening in medium-clutter, edge forested creek habitat. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

<i>Myotis lucifugus</i> , little brown myotis	1 recordings
<i>Myotis lucifugus/Myotis sodalis</i> , ambiguous	1 recordings
40kHz <i>myotis</i> , unknown myotis	9 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)	1 recordings
Unknown/Fragmentary calls, unidentifiable/ambiguous	1 recordings
Total species =	2
Total recordings =	13

Location #2: Cave Branch Creek locations upstream and downstream from Natural Bridge near Bat Cave entrance.

Start Time: 2000 End Time: 2300
 Start Temp: 53°F End Temp: 50°F
 Lat/Long: 38° 22' 40"N; 83° 07' 35"W
 Site #1:

One 12-m (42-foot) 3H mist net set in a U-configuration with a 6-m (18-foot) single-high mist net and a 9-m (30-foot) single high mist net with the 3H and 30-foot single-high mist nets over the creek and the 18-foot mist net across the trail to bat cave, just upstream from Natural Bridge, plus one 2.6-m (6-foot) mist net across trail towards Bat Cave entrance, plus one 12-m (42-foot) 3H mist net set in conjunction with an 18-m (60-foot) single-high mist net in a V-configuration along creek leading to Bat Cave entrance.

<i>Lasiurus borealis</i> , red bat	2 (1 male (a, s); 1 unknown)
<i>Myotis septentrionalis</i> , northern long-eared myotis	1 male (j, nr)
<i>Myotis sodalis</i> , Indiana myotis	1 male (a, nr)
<i>Myotis unknown</i> , unknown myotis	1 unknown – escaped before identification
<i>Pipistrellus subflavus</i> , eastern pipistrelle	1 male (a, nr)
Total species =	4
Total individuals =	6

Acoustic #2: Forested clearing near stream behind Visitor's Center along path to pavilion and Natural Bridge and Bat Cave entrance.

Start Time: 2000 End Time: 2400
 Start Temp: 55.6°F End Temp: 48.1°F
 Lat/Long: 38° 22' 38"N; 83° 07' 25"W
 Site #1:

One Wildlife Acoustics SM2-192 (default settings) set passively about 5-feet up a tree on edge of clearing pointing toward open area and creek in open habitat. Analyzed with SonoBat 3.03 (NE) classifier and verified by hand by J.Tyburec.

<i>Eptesicus fuscus</i> , big brown bat	2 recordings
<i>Lasiurus borealis</i> , red bat	2 recordings
<i>Lasiurus borealis/Myotis lucifugus</i> , ambiguous	1 recording
<i>Lasiurus borealis/Pipistrellus subflavus</i> , ambiguous	3 recordings
40kHz <i>myotis</i> , unknown myotis	2 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle (tri-colored bat)	3 recordings
Unknown/Fragmentary calls, unidentifiable/ambiguous	4 recordings
Total species =	4
Total recordings =	17

Summary of Capture Results: September 11 thru 16, 2011

One 8-foot (2.6m) mist net, eleven 18-foot (6m) mist nets, twelve 30-foot (9m) mist nets, eight 60-foot (18m) mist nets, one 2H 30-foot (9m) mist net, one 3H 18-foot (6m) mist net, three 3H 30-foot (9m) mist nets, and twelve 3H 42-foot (12m) mist nets.

(155.75 net/trap-hours total = 0.4 bats/net-trap-hour)

<i>Eptesicus fuscus</i> , big brown bat	3 males (2 a, s; 1 j, nr)
<i>Lasiurus borealis</i> , eastern red bat	24 (4 females (a, nr); 14 males (5nr, 5s, 4j); 6 unk)
<i>Myotis lucifugus</i> , little brown myotis	9 (2 female (a, nr); 7 male (2nr, 4s, 1j))
<i>Myotis septentrionalis</i> , northern long-eared myotis	7 (1 female (pl); 5 males (3nr, 1s, 1j); 1 unknown)
<i>Myotis sodalis</i> , Indiana myotis	7 (1 female (a, nr); 6 males (3nr, 2s, 1j))
<i>Myotis unknown</i> , unknown myotis	1 unknown
<i>Pipistrellus subflavus</i> , eastern pipistrelle	7 (1 female (a, pl); 6 males (4nr, 2s))
Unknown bat, unknown species escaped before identification	1 unknown
Total species	= 6 (+ 1 flying squirrel)
Total individuals	= 59 (+ 2 flying squirrels)

Summary of Acoustic Results: September 11 thru 16, 2011

Two Pettersson D240x detectors, five Pettersson D500x detectors, two Wildlife Acoustics SM2-192 detectors, and two Wildlife Acoustics EM3 detectors

(6 monitoring nights, 29 detector-hours total)

(3.25 active-hours and 25.75 passive-hours) = 50 bats/detector-hour

* <i>Corynorhinus rafinesquii</i> , Rafinesque's big-eared bat	1 recording
<i>Eptesicus fuscus</i> , big brown bat	4 recordings
<i>Eptesicus fuscus/Lasionycteris noctivagans</i> , ambiguous	2 recordings
<i>Eptesicus fuscus/Lasiurus cinereus</i> , ambiguous	1 recording
<i>Lasiurus borealis</i> , red bat	45 recordings
<i>Lasiurus borealis/Myotis lucifugus</i> , ambiguous	108 recordings
<i>Lasiurus borealis/Pipistrellus subflavus</i> , ambiguous	46 recordings
* <i>Lasiurus cinereus</i> , hoary bat	5 recordings
* <i>Lasiurus intermedius</i> , northern yellow bat	1 recording
* <i>Myotis grisescens</i> , gray myotis	11 recordings
* <i>Myotis leibii</i> , eastern small-footed myotis	1 recording
<i>Myotis lucifugus</i> , little brown myotis	176 recordings
<i>Myotis lucifugus/Myotis sodalis</i> , ambiguous	129 recordings
<i>Myotis septentrionalis</i> , northern long-eared myotis	2 recordings
<i>Myotis sodalis</i> , Indiana myotis	3 recordings
40kHz myotis, unknown myotis	612 recordings
<i>Pipistrellus subflavus</i> , eastern pipistrelle, (tri-colored bat)	91 recordings
Unknown/Fragmentary calls, unidentifiable/ambiguous	218 recordings
Total species	= 11
Total recordings	= 1456

*A note about acoustic recordings: Five (5) additional bat species were represented in this survey by echolocation recordings alone, and these species were not physically captured. Each of these species was identified on the basis of at least one, highly confident recording, which contained call parameters that matched what is currently known for that particular species, but it should be noted that acoustic classification of bats is not an exact science and many bats will produce calls that mimic other species, depending on recording conditions and/or bat activity. Irrefutable proof of species presence still may require a bat in the hand.

Please direct all inquiries about this information to:
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a = adult, j = juvenile; nr = non-reproductive, p = pregnant, l = lactating, pl = post lactating, s = scrotal
unless otherwise noted, assume all bats are adult/non-reproductive