

## Mist Netting Data Form

Sheet    of   

Site No. 28 Project No./Name 412 Emerson Creek Date 28 July 2015

Site Location South of Chip U.S. 91 CR

County Seneca State OH Time Up 2050 Time Down 0153 Datum NAD83 Observers T. Wetzel A. Ashmore

Lat/Lon: UTM: N/E 412530 W/N 12 862804 Zone   

COPPERHEAD  
INDEPENDENT CONSTRUCTION

Moon Phase 75% Wax / Wane

Rise 0622 Set 2053

Moon 1823 0335

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2131	EPFU	J	M	NR	18.25	45	C	2.5	0	-	-	-
2	2150	EPFU	A	M	NR	15.75	48	D	4.5	0	-	-	-
3	2217	EPFU	J	F	NR	16.5	47.5	B	1.0	0	-	-	-
4	2250	EPFU	A	M	S	17.25	48.5	C	1.0	0	-	-	-
5	2320	EPFU	A	M	S	19.75	48.0	C	3.5	0	-	-	-
6	2320	EPFU	J	M	NR	14.25	47.0	C	1.0	0	-	-	-
7	2340	EPFU	J	M	NR	15.5	46.0	D	2.0	0	-	-	-
8	2340	EPFU	A	M	S	19.25	47.0	D	3.0	0	-	-	-
9	0003	EPFU	J	M	NR	16.00	48.00	B	6.0	0	-	-	-
10	0016	EPFU	J	F	NR	17.5	47.0	C	3.0	0	-	-	-
11	0016	EPFU	J	M	NR	17.5	45	C	1.5	0	-	-	-
12	0116	LACI	J	M	NR	22.5	53	C	1.0	0	-	-	-
13	0116	EPFU	J	M	S	15.0	44.5	C	1.5	0	-	-	-
14	0116	EPFU	A	M	S	15.75	43	D	3.0	0	-	-	-
15	0150	EPFU	J	F	NR	18.0	49	D	4.5	0	-	-	-
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													

## Sky Code

0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

## Beaufort Wind Scale

0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVD); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagans (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Please Return to:

P.O. Box 73, Paint Lick, KY, 40461.  
(859) 925-9012

## Mist Netting Data Form

Site No. 8 Project No./Name 412 / Fawcett Creek Date 7/20/16  
 Site Location Woodlot south of CR 606  
 County Spartanburg State SC Time Up 2050 Time Down 0152  
 Lat/Lon: UTM: N/E 41, 255, 63 W/N 82, 808, 04 Zone 18 Datum NAD83 Observers P. Sewell  
A. Asmire

COPPERHEAD  
INDEPENDENT RESEARCH

Moon Phase 100%		Wax / Wane	
Rise	Set		
Sun	0624		2052
Moon	0000		0535

Time	Temp (F)	Sky	Wind	No. Bats
2100	75	0	0	
2200	71	0	0	
2300	69	0	0	
0000	68	0	0	
0100	67	0	0	
0200	66	0	0	

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

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p. 2

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2135	EPFU	A	M	NR	16.0	45	E	3	1	-	-	-
2	2135	LABD	A	F	L	12.3	43	E	4	1	-	-	-
3	2135	EPFU	A	M	NR	13.9	44	C	6	0	-	-	-
4	2157	LABD	J	F	NR	9.3	41	D	4	0	-	-	-
5	2157	EPFU	J	F	NR	16.7	49	D	4	0	-	-	-
6	2215	EPFU	A	M	NR	16.5	46	D	-	0	-	-	-
7	2215	EPFU	J	M	NR	13.25	45	D	-	0	-	-	-
8	2215	EPFU	A	M	S	16.5	47	B	-	0	-	-	-
9	2215	LABD	J	F	NR	10.35	41	B	-	0	-	-	-
10	2215	LABD	J	F	NR	10.25	40	B	-	0	-	-	-
11	2215	EPFU	A	M	NR	14.8	47	C	-	1	-	-	-
12	2215	EPFU	J	M	NR	11.7	45	D	-	0	-	-	-
13	2215	EPFU	A	M	S	17.0	49	D	-	0	-	-	-
14	2215	EPFU	J	M	NR	17.5	46.5	E	-	1	-	-	-
15	2215	EPFU	A	M	NR	16.7	46	F	-	0	-	-	-
16	2215	EPFU	A	F	BL	23.3	46	C	-	0	-	-	-
17	2255	EPFU	A	F	BL	19.5	50	E	-	0	-	-	-
18	2255	EPFU	J	F	NR	17.5	50	D	-	0	-	-	-
19	2255	EPFU	J	M	NR	14.15	46	D	-	1	-	-	-
20	2255	EPFU	A	M	S	19.5	49	D	-	1	-	-	-
21	2255	EPFU	J	M	NR	14.8	46	B	-	1	-	-	-
22	2315	EPFU	J	F	NR	16.5	50	C	5	0	-	-	-
23	2315	EPFU	A	M	NR	17.5	48	E	3	0	-	-	-
24													
25													
26													
27													
28													
29													
30													

Acoustic Survey: Unit type \_\_\_\_\_ Unit # \_\_\_\_\_ Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Coordinates \_\_\_\_\_

Weatherproofing \_\_\_\_\_  
 Comments: \_\_\_\_\_

# Mist Net Site Habitat Sheet

Site No. 28

Project No./Name 412 / Emerson Creek

Date 28 July 2015

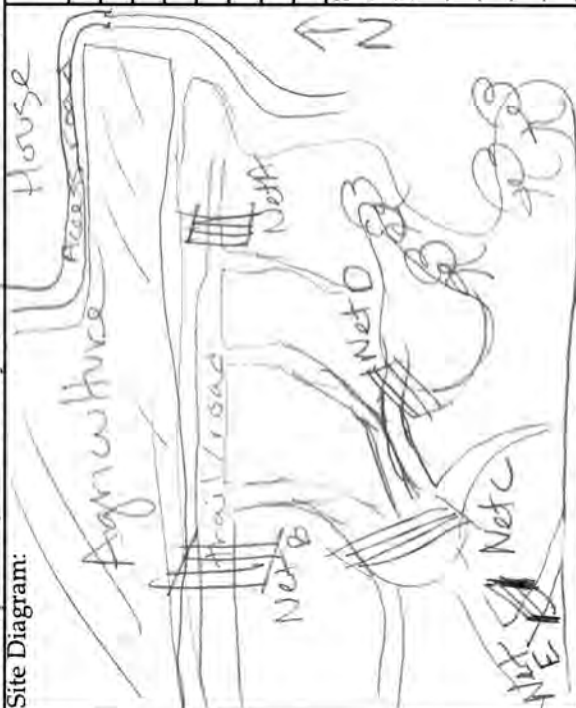
Observers T. Wetzel, A. Ashmore

Lat/Lon: UTM: N/E 41.253503 W/N 82.862804

Datum: NAD83 County Seneca State OH Quad Penlune

Zone 18N

Site Diagram:



Net	Height (m)	Length (m)	Dates
A	5.2	9	7/28 7/30
B	7.8	9	7/28 7/30
C	5.2	9	7/28 7/30
D	5.2	9	7/28 7/30
E	5.2	6	7/30
F			

Dominant Vegetation		
1. <i>Tilia americana</i>	4. <i>Acer saccharum</i>	
2. <i>Prunus serotina</i>	5. <i>Celtis occidentalis</i>	
3. <i>Celtis occidentalis</i>	6. <i>Celtis occidentalis</i>	

Net Set by Habitat					
Habitat	A	B	C	D	E
River					
Stream					
Pond					
Corridor	X	X	X	X	X
Cave					
Mine					
Forest					
Gap					
Other					

## Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

Roost habitat: 1. Poor: No or few snags >= 5" DBH with sloughing bark or other usable roost features (cracks, crevices, etc)

2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.

3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.

Water Resources: 1. Poor: bat drinking resources not present at the site.

2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.

3. Optimal: Streams or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.

Forest Structure: (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).

1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging

2. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.

3. Optimal: Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.

Land Cover: 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.

2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.

3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

Total Habitat Score (Should be between 4 & 12)

Comments: Trails running through woodlot, some more cluttered than others

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859-925-9012

COPPERHEAD

INDEPENDENT RESEARCH

## Mist Netting Data Form

Site No. 29 Project No./Name 412 Date 24 July 2015  
 Site Location Woodlot + base of Lodi-Colony Rd  
 County Seneca State OH Time Up 2052 Time Down 0157  
 Lat/Lon: UTM: N/E 41.24786 W/N 82.93722 Zone 18 Datum NAD83 Observers K. Pearson, A. Truesdell



**COPPERHEAD**  
 CONSULTING

Moon Phase <u>55</u> %		Wax / Wane	
Time	Temp (F)	Sky	Wind
Sun		Rise	Set
Moon		0618	2057
		1431	0059

Time	Temp (F)	Sky	Wind	No. Bats
2105	78.1	clear	0	2
2257	70.1	2	0	4
2326	68.7	0	1	0
0013	68.0	0	1	1
0123	67.9	0	1	

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

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#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2125	LABO	A	F	NR	8.25	43	A	2	0			
2	2129	LABO	A	M	NR	11.25	42	C	1	0			
3	2200	EPFU	A	F	NR	17.25	47	C	2.0	0			
4	2210	EPFU	A	F	NR	20.25	49	C	2.5	0			
5	2212	EPFU	A	ESCAPE	100	100	45	B	2				
6	2225	EPFU	A	M	NR	18.75	49	D	1.5	0			
7	0040	EPFU	A	M	NR	18.5	45	D	3.5	0			
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Acoustic Survey: Unit type \_\_\_\_\_ Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_

Weatherproofing \_\_\_\_\_ Coordinates \_\_\_\_\_  
 Comments: \_\_\_\_\_



## Mist Netting Data Form

Sheet 1 of 1

Site No. 29 Project No./Name 412 / Apex Wind Date 7/27/2015  
 Site Location Wood lot beside Lodi-Colby Rd  
 County Seneca State OH Time Up 2055 Time Down 0155  
 Lat/Lon: UTM: N/E 41, 24786 W/N -82, 93722 Zone — Datum NAD 83 Observers S. Samoray  
H. Braunreiter

COPPERHEAD  
ENVIRONMENTAL CONSULTING

Moon Phase 74 %		Wax / Wane	
Time	Temp (F)	Sky	Wind
2100	80	0	0
2200	76	0	0
2300	73	0	0
0000	70	0	0
0100	70	0	0
0200	69	0	0

Time	Temp (F)	Sky	Wind	No. Bats
2100	80	0	0	5
2200	76	0	0	1
2300	73	0	0	0
0000	70	0	0	0
0100	70	0	0	0
0200	69	0	0	0

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

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p. 1

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2125	EPFU	A	F	PL	18.0	47.5	B	3.5	0	—	—	—
2	2125	EPFU	A	F	PL	18.0	48.5	B	1.5	0	—	—	—
3	2125	EPFU	J	M	NR	14.5	46.0	B	1.0	0	—	—	—
4	2145	EPFU	J	M	NR	15.0	46.5	B	3.0	0	—	—	—
5	2145	EPFU	A	F	PL	19.0	48.0	C	6.5	0	—	—	—
6	2240	EPFU	A	F	PL	20.5	47.5	A	3.0	0	—	—	—
7													
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29													
30													

Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COV1); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagus (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

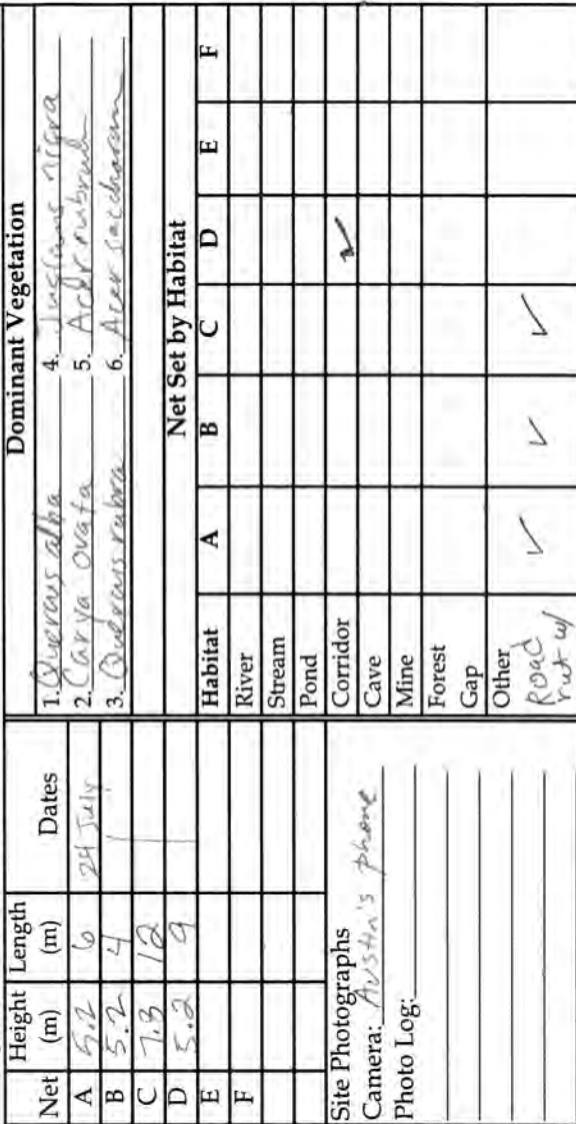
Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Mist Net Site Habitat Sheet

Site No. 29 Project No./Name 412 / Apex Date 24 July 2015

Lat/Lon: UTM: N/E 4124786 W/N -8253728 Zone — Observers K. Pearson, A. Truesdale

Site Diagram:



**Roost habitat:** 1. Poor: No or few snags  $\geq 5"$  DBH with sloughing bark or other usable roost features (cracks, crevices, etc)

- Roost habitat:** 1. **Poor:** No or few snags  $\geq 5"$  DBH with sloughing bark or other usable roost features (cracks, crevices, etc)  
2. **Moderate:** Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  
3. **Optimal:** Snags with sloughing bark or other roost features present  $>15$  inch DBH within 1000 feet of forested areas.
- Water Resources:** 1. **Poor:** bat drinking resources not present at the site.  
2. **Moderate:** Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.  
3. **Optimal:** Streams or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.
- Forest Structure:** (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).  
1. **Poor:** Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging  
2. **Moderate:** some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.  
3. **Optimal:** Mature forest. Diverse age classes of trees present. Trees  $> 15$  inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.
- Land Cover:** 1. **Poor:** Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.  
2. **Marginal:** Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.  
3. **Optimal:** Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

**Comments:**

P.O. Box 73, Paint Lick, KY 40461

859-925-9012



**COPPERHEAD**

## Mist Netting Data Form

Sheet 1 of 1

Site No. 30 Project No./Name 412 Emerson Creek Date 25 July 2015  
 Site Location Woodlot east of Township Rd 138 and east of Trail 0175  
 County Semeca State OH Time Up 2050 Time Down 0150 Observers K. Barman, K. Novak  
 Lat/Lon: UTM: (N/E) 41.18258 WYN -83.02415 Zone — Datum NAD83

COPPERHEAD  
INSTITUTE

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2325	EPFU	J	M	UR	15.75	44	A	2.5	0	—	—	—
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
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22													
23													
24													
25													
26													
27													
28													
29													
30													

**Species Abbreviations:** *Corynorhinus rafinesquii* (CORA); *Corynorhinus t. virginianus* (COVt); *Eptesicus fuscus* (EPFU); *Lasiurus borealis* (LABO); *Lasiurus cinereus* (LACI); *Lasiurus seminolus* (LASE); *Lasionycteris noctivagans* (LANO); *Myotis austroriparius* (MYAU); *Myotis grisescens* (MYGR); *Myotis leibii* (MYLE); *Myotis lucifugus* (MYLU); *Myotis septentrionalis* (MYSE); *Myotis sodalis* (MYSO); *Nycticeius humeralis* (NYHU); *Perimyotis subflavus* (PESU); *Tadarida brasiliensis* (TABR)

**Other Abbreviations:** Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

Moon Phase %		Wax / Wane	
Rise	Set		
Sun	0620	0857	
Moon	0330	0125	

Time	Temp (F)	Sky	Wind	No. Bats
2100	75	0	0	0
2212	70.9	0	1	0
2300	70.5	1	1	0
0017	71.5	2	1	1
0119	71.4	3	2	

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

Please Return to:

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 (859) 925-9012

# Mist Netting Data Form

Site No. 30 Project No./Name 42.011 Emerson Creek Date 30 July 2015  
 Site Location South of Quail Rd 138 + E. of trail 0135  
 County Sevier State 07 Time Up 2050 Time Down 0150  
 Lat/Lon ; UTM: N/E 41.1258 W/N -83.02415 Zone 18 Datum NAD83 Observers Coleffrid R. Borthwick



COPPERHEAD

Moon Phase <u>95% gibbous</u> Wax / Wane	
Rise	Set
Sun <u>0624</u>	<u>0052</u>
Moon <u>0006</u>	<u>0535</u>

Time	Temp (F)	Sky	Wind	No. Bats
<u>2100</u>	<u>67.0</u>	<u>0</u>	<u>1</u>	<u>0</u>
<u>2200</u>	<u>62.0</u>	<u>0</u>	<u>0</u>	<u>2</u>
<u>2300</u>	<u>60.0</u>	<u>0</u>	<u>1</u>	<u>1</u>
<u>0000</u>	<u>59.0</u>	<u>0</u>	<u>1</u>	<u>0</u>
<u>0100</u>	<u>58.0</u>	<u>0</u>	<u>1</u>	<u>1</u>
<u>0155</u>	<u>58.0</u>	<u>0</u>	<u>0</u>	

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

Please Return to:  
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#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	<u>2225</u>	<u>EPFU</u>	<u>J</u>	<u>F</u>	<u>NR</u>	<u>18.5</u>	<u>44</u>	<u>A</u>	<u>1.5</u>	<u>0</u>	<u>-</u>	<u>-</u>	<u>-</u>
2	<u>2325</u>	<u>EPFU</u>	<u>J</u>	<u>M</u>	<u>NR</u>	<u>13.25</u>	<u>43</u>	<u>A</u>	<u>2.2</u>	<u>0</u>	<u>-</u>	<u>-</u>	<u>-</u>
3	<u>2325</u>	<u>EPFU</u>	<u>J</u>	<u>F</u>	<u>NR</u>	<u>19.0</u>	<u>44</u>	<u>A</u>	<u>2.4</u>	<u>0</u>	<u>-</u>	<u>-</u>	<u>-</u>
4	<u>0135</u>	<u>L100</u>	<u>J</u>	<u>M</u>	<u>NR</u>	<u>9.25</u>	<u>37</u>	<u>A</u>	<u>2.8</u>	<u>0</u>	<u>-</u>	<u>-</u>	<u>-</u>
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Acoustic Survey: Unit type \_\_\_\_\_ Unit # \_\_\_\_\_ Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Weatherproofing \_\_\_\_\_ Coordinates \_\_\_\_\_  
 Comments: \_\_\_\_\_



Mist Net Site Habitat Sheet Site No. 30 Project No./Name 412.01 Emerson Creek Date 25 July 2015  
 Lat/Lon: UTM: N7E 411825X W/N 83.02415 Zone 1 Observers K. Pearson, A. Tronsdale

Datum: County Seneca State OH Quad Watson

Site Diagram:			Dominant Vegetation		
	Net	Height (m)	Length (m)	July Dates	
	A	5.2	6	25, 30	1. <i>Tilia americana</i> 4. <i>Quercus alba</i>
	B	5.2	6	25, 30	2. <i>Trifolium repens</i> 5. <i>Quercus rubra</i>
	C	5.2	6	25, 30	3. <i>Carya ovata</i> 6. _____
Net Set by Habitat					
Habitat	A	B	C	D	E
River					F
Stream					
Pond					
Corridor	X	X			
Cave					
Mine					
Forest				X	
Gap					
Other					

Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

- Roost habitat: 1. Poor: No or few snags >= 5" DBH with sloughing bark or other usable roost features (cracks, crevices, etc)  
 2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  
 3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.
- Water Resources: 1. Poor: bat drinking resources not present at the site.  
 2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.  
 3. Optimal: Streams or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.
- Forest Structure: (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).  
 1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging  
 2. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.  
 3. Optimal: Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.
- Land Cover: 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.  
 2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.  
 3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

Total Habitat Score (Should be between 4 & 12) 7

Comments: \* Adding a net/moving a net to the area on the edge lot of the point near where the truck was parked may increase captures. Several bats were observed flying that edge over the course of the first night.

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 THE UNIVERSITY OF KENTUCKY

## Mist Netting Data Form

Sheet    of   

Site No. 31 Project No./Name 42.01 Emerson Creek Date 25 July 15  
 Site Location Open woodlot bordered by bean + corn field, 5.04 E. County Rd 24  
 County Seneca State OH Time Up 2050 Time Down 0155  
 Lat/Long; UTM: N/E 41.15556 W/N 080.91178 Zone    Datum NAD83 Observers C. Lehterich  
Danion Scott

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ENVIRONMENTAL CONSULTING

Moons Phase	%	Rise	Set
Sun	65	0614	2056
Moon		1530	0125

Time	Temp (F)	Sky	Wind	No. Bats
2100	72	2	1	1
2200	68	1	0	0
2300	64	0	1	4
0000	64	2	1	1
0100	64	3	0	1
0200	63	3	0	1

Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

Beaufort Wind Scale	
0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2140	EPUA	A	F	L	17	43	0	2	0	-	-	-
2	2220	EPUA	-	-	-	-	53	0	-	-	-	-	-
3	2320	EPUA	-	-	-	-	53	0	-	-	-	-	-
4	2320	EPUA	J	M	NR	13	43	A	1	0	-	-	-
5	2320	EPUA	J	F	NR	15.5	45	A	3	0	-	-	-
6	0010	EPUA	A	F	PL	20.5	48	0	2.5	0	-	-	-
7	0128	LABO	J	F	NR	16.5	40	0	1.5	0	-	-	-
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**Species Abbreviations:** Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagus (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

**Other Abbreviations:** Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

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## Mist Netting Data Form

Site No. 31 Project No./Name 91201-1 Enacium Creek Date 28 July 15  
 Site Location Woodlot collected by 1980s & 1990s, south of E. Lantry Rd 24  
 County Shelby State OH Time Up 0850 Time Down 0155  
 Lat/Lon: UTM: N/E 41, 15556 W/N 82.99978 Zone 18 Datum NAD 83 Observers C. Leitch  
A. Townsend P. Simon

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P. SIMON & ASSOCIATES

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2750	EPFU	A	F	PL	17.5	44	D	2.6	0			
2	2250	EPFU	A	F	PL	18.5	45	A	1.3	0			
3	0130	LAGD	S	M	NK	6.0	35	D	3.0	0			
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Acoustic Survey: Unit type \_\_\_\_\_ Date \_\_\_\_\_ Unit # \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Coordinates \_\_\_\_\_

Weatherproofing \_\_\_\_\_

Comments: \_\_\_\_\_

Moon Phase	90 % gibbous	Wax	Wane
Sun	Rise	0622	Set 2054
Moon	Rise	1923	Set 0335

Time	Temp (F)	Sky	Wind	No. Bats
2100	70	1	1	0
2200	67	1	0	2
2300	66	1	0	0
0000	66	1	0	0
0100	66	1	0	0
0200	66	1	0	0

Sky Code	0	1	2	3	4	5	6
Clear							
Few Clouds							
Partly Cloudy							
Cloudy or overcast							
Fog or smoke							
Drizzle or light rain							
Heavy rain - thunder storm							

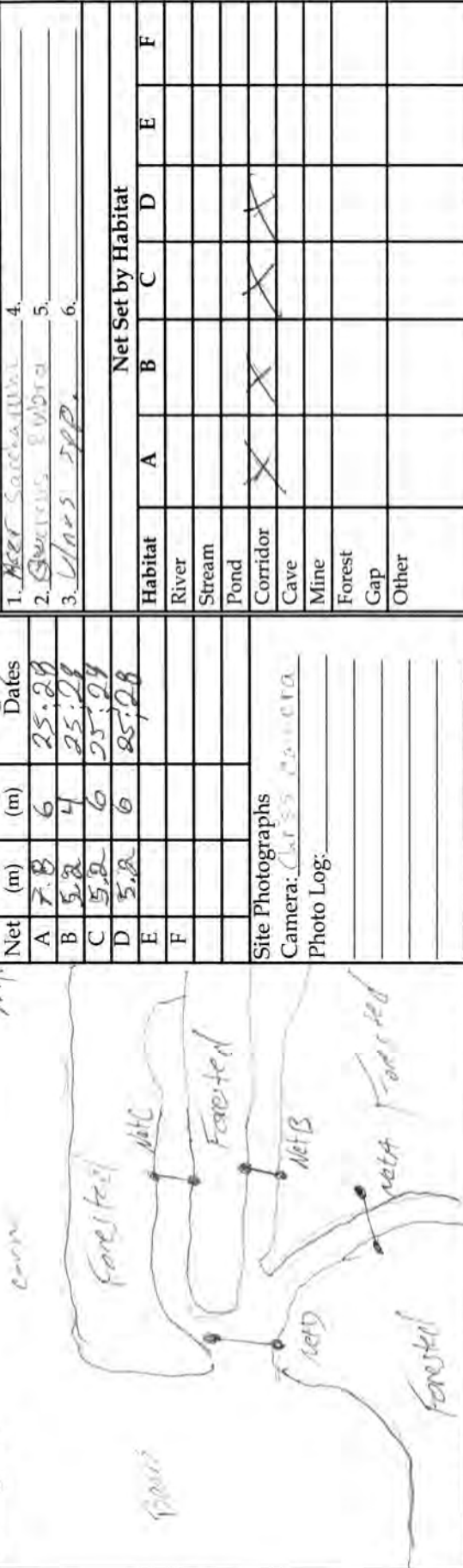
Beaufort Wind Scale	0	1	2	3	4
Calm: <1 mph					
Light air: 1-3 mph					
Light breeze: 4-6 mph					
Gentle breeze: 7-10 mph					
Moderate breeze: 11-16 mph					

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Mist Net Site Habitat Sheet Site No. 31 Project No./Name 412.01 Emerson Creek Date 25 July 15

Lat/Lon: UTM: N/E 41.15556 W/N 082.94978 Zone 18 Observers Chris LePore  
 Datum: NAD83 County Seneca State NY Quad Fire Side

Site Diagram:



Net	Height (m)	Length (m)	Dates	Dominant Vegetation					
A	7.8	6	25.28	1. <u>Acet. Sarcocolla</u>	4.				
B	5.2	4	25.28	2. <u>Betula pumila</u>	5.				
C	5.2	6	25.28	3. <u>Ulmus spp.</u>	6.				
D	5.2	6	25.28						
E									
F									

Habitat	A	B	C	D	E	F
River						
Stream						
Pond						
Corridor	X	X	X	X	X	X
Cave						
Mine						
Forest						
Gap						
Other						

Site Photographs  
 Camera: Canon Powershot  
 Photo Log:

Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

- Roost habitat: 1. Poor: No or few snags >= 5" DBH with sloughing bark or other usable roost features (cracks, crevices, etc)  
 2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  
 3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.
- Water Resources: 1. Poor: bat drinking resources not present at the site.  
 2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.  
 3. Optimal: Streams or ponds (including road cuts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.
- Forest Structure: (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).  
 1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging  
 2. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.  
 3. Optimal: Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.
- Land Cover: 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.  
 2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.  
 3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

Total Habitat Score (Should be between 4 & 12) 7

Comments:



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## Mist Netting Data Form

Sheet 1 of 1

Site No. 38 Project No./Name 412.01-1 Emerson Creek Date 24 July 15  
 Site Location unmarked south of E. Township Rd  
 County Seneca State OH Time Up 0658 Time Down 0158  
 Cat/Dog? Don't UTM: N/E 41.17542 W/N 82.98250 Zone 18  
 Observers Collettrich Patterson Scott

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Moon Phase 25% 1st quarter Wax / Wane  
 Sun 0620 Set 2058  
 Moon 1433 0125

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	0134	EPFU	J	F	NR	12.0	45	A	1.6	0	-	-	-
2	0134	EPFU	A	F	PL	16.5	45	A	3.0	0	-	-	-
3	0240	EPFU	J	F	NR	14.0	46	A	4.0	0	-	-	-
4	0350	EPFU	J	M	NR	13.5	42	A	2.5	0	-	-	-
5	0020	EPFU	A	F	L	21	43	A	3	0	-	-	-
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## Sky Code

0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

## Beaufort Wind Scale

0	Calm: <1 mph
1	Light air: 1-3 mph
2	Light breeze: 4-6 mph
3	Gentle breeze: 7-10 mph
4	Moderate breeze: 11-16 mph

Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasiurus noctivagus (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR

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## Mist Netting Data Form

Site No. 32 Project No./Name 412.01 Emerson Creek Date 27 July 15  
 Site Location Woodlot south of E. Township Road  
 County Seneca State OH Time Up 2034 Time Down 0155  
 Lat/Lon: UTM: N/E 41.17548 W/N 82.9250 Zone 18 Datum NAD 83 Observers C. G. B. & J. A. P. & J. P. S. & J. P. S.

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ENVIRONMENTAL CONSULTING

Moons Phase	83% gibbous	Wax	Wane
Sun	0621	2054	
Moon	1726	0246	

Time	Temp (F)	Sky	Wind	No. Bats
2100	73	1	2	1
2200	72	1	1	0
2300	70	1	0	0
0000	68	1	0	1
0100	68	1	0	2
0200	68	1	0	0

Sky Code
0 Clear
1 Few Clouds
2 Partly Cloudy
3 Cloudy or overcast
4 Fog or smoke
5 Drizzle or light rain
6 Heavy rain - thunder storm

Beaufort Wind Scale
0 Calm: <1 mph
1 Light air: 1-3 mph
2 Light breeze: 4-6 mph
3 Gentle breeze: 7-10 mph
4 Moderate breeze: 11-16 mph

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p. 2

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2155	LABO	J	F	NR	8.5	38.0	A	4.0	0	-	-	-
2	0050	EPFU	J	M	NR	13.5	43.5	A	1.0	0	-	-	-
3	0125	EPFU	J	M	NR	13.5	45	C	3.0	0	-	-	-
4	0150	LABO	J	F	NR	10.75	41	B	2.0	0	-	-	-
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Acoustic Survey: Unit type \_\_\_\_\_ Unit # \_\_\_\_\_ Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Date \_\_\_\_\_ Start time \_\_\_\_\_ Stop time \_\_\_\_\_  
 Coordinates \_\_\_\_\_  
 Weatherproofing \_\_\_\_\_  
 Comments: \_\_\_\_\_

Mist Net Site Habitat Sheet

Site No. 32

Project No./Name 2112.01/ Emerson Creek

Date 24 July

Lat/Lon ; UTM: N/E 41.17542

Datum: NAD83

County Seneca

State NY

Zone 18T

Observers Chris Leftwich

Site Diagram:

Net	Height (m)	Length (m)	July Dates
A	7.0	9	24, 27
B	5.2	6	24, 27
C	5.2	4	24, 27
D	5.2	4	24, 27
E			
F			

Site Photographs

Camera: Canon 100D

Photo Log: A: 0092, 0093

B: 0094, 0095

C: 0096, 0097

D: 0098, 0103

Dominant Vegetation						
1. Quercus Rubra 4. 09/04						
2. Corylus americana 5.						
3. Acer saccharinum 6.						

Net Set by Habitat						
Habitat	A	B	C	D	E	F
River						
Stream						
Pond						
Corridor		X	X	X		
Cave						
Mine						
Forest						
Gap						
Other						
Pond						

Indiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)

Roost habitat: 1. Poor: No or few snags >= 5" DBH with sloughing bark or other usable roost features (cracks, crevices, etc)

2. Moderate: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.

3. Optimal: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.

Water Resources: 1. Poor: bat drinking resources not present at the site.

2. Moderate: Ephemeral or intermittent streams or ponded areas present but too cluttered to allow many bats to drink easily or simultaneously. No corridors, openings or canopy gaps allow bats easy access to the resource.

3. Optimal: Streams or ponds (including road cuts) present that appear to offer drinking resource throughout the majority of the summer. Flyways to resources are available.

Forest Structure: (if hardwoods are absent or nearly absent or if stand is monoculture, area automatically qualifies as a 1: poor).

1. Poor: Habitat even aged and young. Trees smaller than 5 inch DBH. Understory growth cluttered and restricts flying/foraging

2. Moderate: some diversity in age of trees in the stand. Trees 5 to 15 inches present. Understory clutter dominant but not ubiquitous. Trees greater than 15" DBH may be present but rare.

3. Optimal: Mature forest. Diverse age classes of trees present. Trees > 15 inch DBH frequent. Varying tree height and treefalls allow for frequent small openings and gaps that facilitate bat foraging.

Land Cover: 1. Poor: Square kilometer surrounding site predominantly un-forested. Few mature trees present not connected to other areas of trees.

2. Marginal: Trees present in the form of small woodlots and wooded fence rows. Little connection to adjacent forested areas.

3. Optimal: Area is largely forested. Wooded stands are connected to other wooded stands via wooded stream, fence row, or other wooded corridor.

Total Habitat Score (Should be between 4 & 12)

9

Comments:

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## Mist Netting Data Form

Sheet 1 of 2

Site No. 33 Project No./Name 412.01 / Eagleview Creek Date 7-24-15  
 Site Location Wood lot + Pond near Coyote Grove camp ground  
 County Seneca State OK Time Up 0900 Time Down 0200  
 Lat/Long: UTM: 41.18233 W N - 82.93582 Zone — Observers B. Penley / R. McVey  
 Datum NAD83

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PHYSIOLOGICAL CONSULTING

Moon Phase	%	Rise	Set
Sun		6:24 am	8:53 pm
Moon		7:21 pm	4:32 am

Time	Temp (F)	Sky	Wind	No. Bats
9:00	80	2	0	N/A
10:00	78	2	0	1
11:00	78	2	1	3
12:00	77	0	1	0
01:00	76	0	1	0
2:00	73	0	1	0

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDL	G/H/B/T	Band# Type	Freq.
1	9:45	EPFU	A	F	NR	46	46	B	2	0	N/A	N/A	N/A
2	11:00	EPFU	A	M	NR	190	47	C	1.5	0	N/A	N/A	N/A
3	11:00	LABO	A	F	PL	130	40	A	4	0	N/A	N/A	N/A
4	11:00	EPFU	J	M	NR	165	47	A	4	0	N/A	N/A	N/A
5													
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30													

Time	Temp (F)	Sky	Wind	No. Bats
9:00	80	2	0	N/A
10:00	78	2	0	1
11:00	78	2	1	3
12:00	77	0	1	0
01:00	76	0	1	0
2:00	73	0	1	0

Time	Temp (F)	Sky	Wind	No. Bats
9:00	80	2	0	N/A
10:00	78	2	0	1
11:00	78	2	1	3
12:00	77	0	1	0
01:00	76	0	1	0
2:00	73	0	1	0

Sky Code	0	1	2	3	4	5	6
Clear							
Few Clouds							
Partly Cloudy							
Cloudy or overcast							
Fog or smoke							
Drizzle or light rain							
Heavy rain - thunder storm							

Beaufort Wind Scale	0	1	2	3	4
Calm: <1 mph					
Light air: 1-3 mph					
Light breeze: 4-6 mph					
Gentle breeze: 7-10 mph					
Moderate breeze: 11-16 mph					

Beaufort Wind Scale	0	1	2	3	4
Calm: <1 mph					
Light air: 1-3 mph					
Light breeze: 4-6 mph					
Gentle breeze: 7-10 mph					
Moderate breeze: 11-16 mph					

Beaufort Wind Scale	0	1	2	3	4
Calm: <1 mph					
Light air: 1-3 mph					
Light breeze: 4-6 mph					
Gentle breeze: 7-10 mph					
Moderate breeze: 11-16 mph					

Please Return to:  
 P.O. Box 73, Paint Lick, KY, 40461.  
 (859) 925-9012

Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasionycteris noctivagans (LANO); Myotis austroriparius (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR)

Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR



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Summary: Application Exhibit R Part 7 of 11 electronically filed by Teresa Orahood on behalf of Dylan F. Borchers