

Mist Netting Data Form

Sheet 1 of 1

Site No. 18 Project No./Name 412-01 / Apple-Emerson Creek Wind Date 28-July-2015
 Site Location Liberty + Perryman Stream
 County Sevier State OH Time Up 2053 Time Down 0153
 Lat/Lon ; UTM: N/E 41.17719 W/N -82.92827 Zone — Datum NAD83 Observers ST. Samard H. Braunreiter

COPPERHEAD
INDEPENDENT RESEARCH ASSOCIATION

Moon Phase 90%		Wax / Wane	
Rise	Set		
Sun	0623		0653
Moon	1824		0431

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2130	EPFU	A	F	PL	16.5	47.5	A	1.5	0			
2	2130	EPFU	ESCAPED	F	NR	FROM	N/A	50					
3	2145	MYSE	J	F	NR	6.0	34.0	C	3.0	0		23362	
4	2200	EPFU	A	M	SC	18.5	47	A	1.5	0			
5	2215	EPFU	A	F	PL	23.5	51.0	A	0.5	0			
6	2345	EPFU	A	M	SC	20.5	47.5	A	6.0	0			
7	0000	EPFU	A	F	PL	20.0	46.5	A	6.0	0			
8													
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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

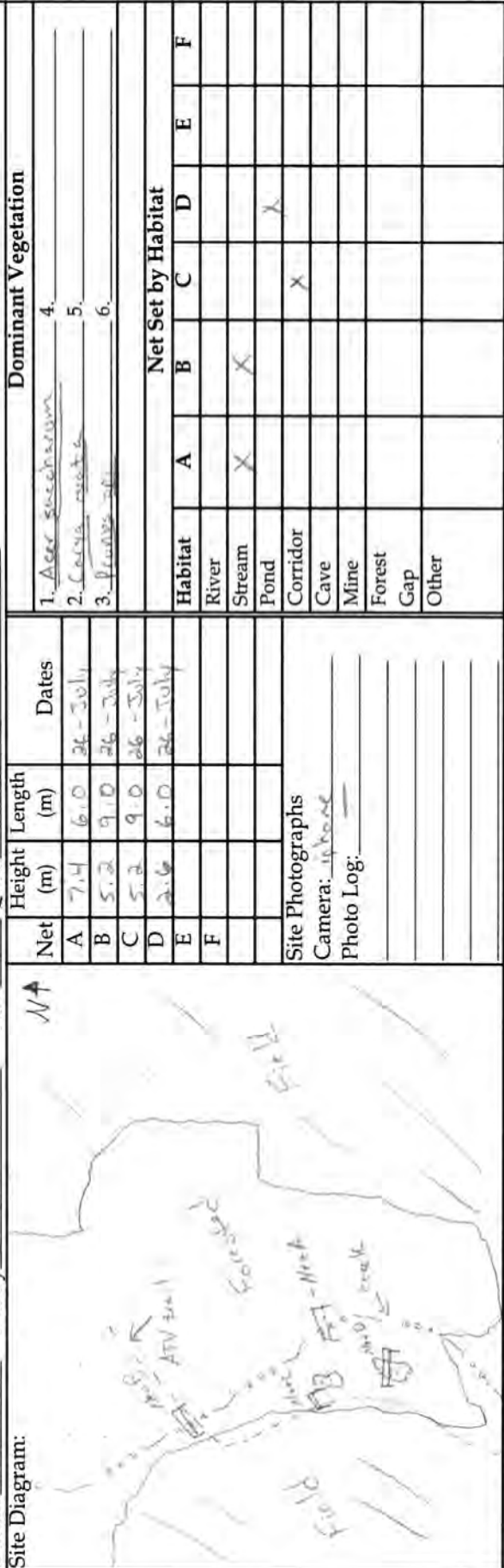
Sky Code	
0	Clear
1	Few Clouds
2	Partly Cloudy
3	Cloudy or overcast
4	Fog or smoke
5	Drizzle or light rain
6	Heavy rain - thunder storm

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:

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

Mist Net Site Habitat Sheet Site No. 14 Project No./Name 412.01 / Emerson Creek Wind Date 26 July 2015
 Lat/Lon; UTM: N/E 41.17519 W/N 82.92827 Zone 18 Observers ST. Sameray
 Datum: NAD 83 County Seneca State OH Quad Fire side

Site Diagram: 

Net		Height (m)	Length (m)	Dates	Dominant Vegetation					
A	7.4	6.0	24-30 July	1. <u>Acer saccharum</u>	4.					
B	5.2	9.0	26-30 July	2. <u>Cornus rostrata</u>	5.					
C	5.2	9.0	26-30 July	3. <u>Prunella</u>	6.					
D	2.6	6.0	26-30 July							
E										
F										

Net Set by Habitat

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

Site Photographs
 Camera: iPhone
 Photo Log:

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

3 **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.

3 **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.

2 **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.

2 **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.

10 **Total Habitat Score** (Should be between 4 & 12)

Comments:

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 859-925-9012

 **COPPERHEAD**
 ENVIRONMENTAL EXPERIMENTAL

OHIO BAT BANDING DATA FORM

Principle Investigator(s) Steve Samaras

County	<u>Seneca</u>	Site Description	<u>Woodlot & perennial streams</u>	Survey dates	<u>26-28 July 2015</u>	Total mist net nights	<u>8</u>
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[illegible]

N/R?: N = new capture, unbanded when captured, R = recapture, already banded when captured; **HABITAT** (at capture site): C = creek/riparian, B = bottomland forest, U = upland forest, P = pond, O = other (note type in margin); **ARM BANDED**: L = left, R = right (typically males are banded on the right forearm and females on the left); **SEX**: M = male, F = female; **AGE**: A = adult, J = juvenile, U = unknown; **REPRODUCTIVE CONDITION**: S = scrotal, P = pregnant, L = lactating, PL = post lactating, NR = nonreproductive, U = unknown

Mist Netting Data Form

Sheet of

Site No. 19 Project No./Name 412 / Emerson Creek Date 7/24/15
 Site Location Forest/Ag edge; stream corridor
 County Seneca State OH Time Up 9:00 pm Time Down 2:00 am
 Lat/Lon; UTM: N/E 41.17659 W/N -83.00348 Zone Datum NAD83 Observers J. Storm, J. Klingel



COPPERHEAD
 TOXICUM MINERAL CONSULTING

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:35	EPFU	A	F	PL	16	48	D	0.5	0	na	na	na
2	11:00	LABO	TV	M	NR	65	36	A	0.5	0	na	na	na
3	11:40	EPFU	A	F	PL	15.75	45	B	6.0	0	na	na	na
4	11:40	EPFU	A	M	S	15	44	D	0.5	0	na	na	na
5	12:10	EPFU	A	F	L	20.75	45	D	1.0	0	na	na	na
6	12:10	EPFU	TV	F	NR	15.25	46	A	1.0	0	na	na	na
7	1:22	EPFU	A	M	S	18	48	D	1.5	0	na	na	na
8													
9													
10													
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30													

Moon Phase	%	72.5	Wax / Wane
Sun		6:19 am	8:58 pm
Moon		4:13 pm	1:25 am

Time	Temp (F)	Sky	Wind	No. Bats
9:00	69.8	1	1	1
10:00	68.5	1	1	0
11:00	67.6	1	1	3
12:00	66.2	1	1	3
1:00	65.4	0	1	1
2:00	64.8	0	2	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

Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasius borealis (LABO); Lasius cinereus (LACI); Lasius 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

Please Return to:

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 (859) 925-9012

Mist Netting Data Form

Site No. 19 Project No./Name 4112 / Emerson Creek Date 7/27/14
 Site Location Forest/Ag edge; stream corridor
 County Shelby State GA Time Up 8:55 Time Down 1:55
 Lat/Lon: UTM: N/E 41.17659 W/N 83.00348 Zone 18 Datum NAD83 Observers J. Storm, J. K. Langer

COPPERHEAD
ENVIRONMENTAL CONSULTING

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
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29													
30													

NO BATS

Moon Phase	%	Wax / Wane
Sun		
Moon		

Time	Temp (F)	Sky	Wind	No. Bats
9:00	70.7	1	2	0
10:00	66.7	1	1	0
11:00	65.8	1	2	0
12:00	65.1	1	1	0
1:00	63.1	1	1	0
2:00	61.7	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

Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Coordinates _____

Weatherproofing _____

Comments: _____

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 (859) 925-9012

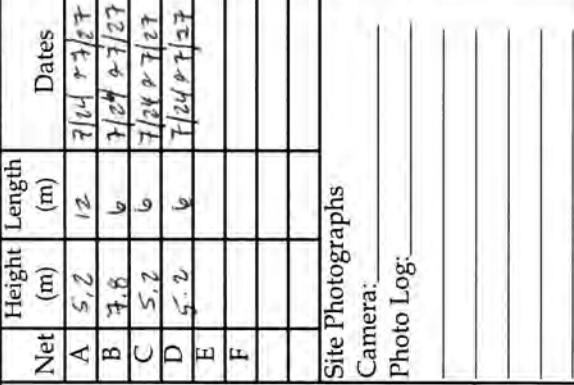
Date 7/24/15

J. Storm, J. Klinker

2

Dominant Vegetation

9231



12

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

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.

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.

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

Please return to:

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COPPERHEAD
CONDITIONAL FORMATIVE

Mist Netting Data Form

Sheet 1 of 2

Site No. 20 Project No./Name 41201 / Emerson Creek Date 7-26-15
 Site Location 1000 ft. off CR 27 & East of North CR 27
 County Seneca State OH Time Up 0855 Time Down 200
 Lat/Long: UTM: 41.18639 82.93455 Zone 18N Observers B. Renby / R. A. Cooper
 Datum NAD83

COPPERHEAD
PETERSON FIELD STATION

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:30	EPFU	A	F	PL	19.0	48	B	3	1	N/A	N/A	N/A
2	10:40	EPFU	A	F	PL	21.5	44	D	1.5	1	N/A	N/A	N/A
3	10:50	EPFU	A	F	PL	18.0	45	A	2	0	N/A	N/A	N/A
4	10:50	LABO	A	F	NR	10.5	36	C	4	0	N/A	N/A	N/A
5	1:10	LABO	A	F	PL	14.5	43	A	1.5	0	N/A	N/A	N/A
6	1:20	LABO	J	F	NR	10.75	41	D	2	0	N/A	N/A	N/A
7													
8													
9													
10													
11													
12													
13													
14													
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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 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	%	78	Wax	Wane
Sun	Rise	6:15		Set
Moon	Rise	7:55	16:23	1:55

Time	Temp (F)	Sky	Wind	No. Bats
9:00	78	2	0	N/A
10:00	71	3	0	1
11:00	70	3	0	3
12:00	68	3	0	0
1:00	66	2	0	0
2:00	65	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					

Please Return to:

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

(859) 925-9012

Mist Netting Data Form

Site No. 20 Project No./Name 41201 / Emerson Creek Date 7-28-15
 Site Location Wood lot south of CR 46 and east of North CR 27
 County Sevier State VA Time Up 4:55 Time Down 0155
 (Lat/Lon): UTM: N/E 41.18639 Datum NAD83 Observers B. Kenley R. McLaughlin
 (UTM): N/E 41.18639 Zone 18N



Moon Phase	%	Rise	Set
Sun		6:34 AM	8:54 PM
Moon		3:36 AM	6:27 PM

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:20	EPFU	J	M	NR	14.0	46	D	2	0		17168	
2	9:40	EPFU	A	M	NR	18.0	47	A	3	0			
3	9:40	EPFU	J	F	NR	15.5	47	A	1.5	0			
4	9:50	EPFU	A	M	NR	15.5	44	C	2	0			
5	10:00	EPFU	J	M	NR	13.5	45	D	7	0			
6	10:50	LABO	A	M	NR	14.0	40	D	5	0			
7	10:50	EPFU	J	F	NR	15.0	46	D	3	0			
8	11:20	EPFU	J	M	NR	15.5	45	A	3.5	0			
9	12:00	EPFU	A	M	S	19.5	47	D	6	0			
10	12:30	LACI	A	F	NR	25.0	54	C	2	0			
11	12:50	EPFU	A	M	NR	17.0	48	D	3	0			
12	2:00	MYSE	J	F	NR	6.0	35	A	2	0		17168	
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													

Moon Phase	%	Rise	Set
Sun		6:34 AM	8:54 PM
Moon		3:36 AM	6:27 PM

Time	Temp (F)	Sky	Wind	No. Bats
9:00	81	1	0	N/A
10:00	78	1	0	4
11:00	75	1	0	43
12:00	73	1	0	1
1:00	71	1	0	3

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

Acoustic Survey: Unit type _____ Unit # _____ Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Date _____ Start time _____ Stop time _____
 Coordinates _____
 Weatherproofing _____
 Comments: _____

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

Mist Net Site Habitat Sheet Site No. 20 Project No./Name 41201 Emerson Creek Date 7-26-15
 Lat/Lon: UTM: 18E 41 18639 W/N -82.931455 Zone 18 Observers B. Beasley / R. McGowan
 Datum: NAD83 County Seneca State OH Quad Fireside

Site Diagram:

Net	Height (m)	Length (m)	Dates	Dominant Vegetation
A	5.2	6	7-26-15 / 7-26-15	1. Walnut
B	5.2	6	7-26-15 / 7-26-15	2. Shag Bark Hickory
C	5.2	6	7-26-15 / 7-26-15	3. Red Oak
D	7.8	9	7-26-15 / 7-26-15	
E				
F				

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

Site Photographs
 Camera: _____
 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)
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 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) 11

Comments:

Please return to:
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 859-925-9012

COPPERHEAD
 HANDMADE PAPER

Mist Netting Data Form

Sheet 1 of 1

Site No. 21 Project No./Name 415 / Emerson Creek Date 25-July-2015

Site Location Woodlot south of site 20

County Seneca State NY Time Up 2055 Time Down 0157

Lat/Lon/UTM: N/E 41.21120 W/N 82.96358 Zone 18 Datum NAD83 Observers T. Wetzel

A. Ashmore

COPPERHEAD
ENVIRONMENTAL CONSULTING

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	2240	EPFU	A	M	NR	0.75	47	A	2.0	0			
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
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25													
26													
27													
28													
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

Moan Phase	%	Rise	Set
Sun		0619	2057
Moon		1530	0625

Time	Temp (F)	Sky	Wind	No. Bats
2100	75	1	0	0
2200	72	0	1	1
2300	71	0	1	0
0000	73	2	1	0
0100	73	2	2	1
0200				
0300				
0400				
0500				
0600				

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

(859) 925-9012

Mist Netting Data Form

Site No. 21 Project No./Name 412 / Emerson Creek Date 27 July 2015
 Site Location Woodlot south of gate 70
 County Sevier State OH Time Up 2050 Time Down 0154
 Lat/Lon: UTM: N7E 41E 27120 WYN 82.90358 Zone 18 Datum NAD83 Observers T. Netel
A. Ashmore

COPPERHEAD
ENVIRONMENTAL CONSULTING

Moon Phase %		Wax / Wane	
Rise	Set		
Sun	0122	2054	
Moon	1823	0335	

Time	Temp (F)	Sky	Wind	No. Bats
2100	79	2	1	0
2200	73	1	0	0
2300	73	0	0	0
0100	71	0	0	0
0100	70	0	0	
0100				

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	2118	LABO	A	F	PL	140	42	A	3.0	0			
2	2118	EPFU	A	M	S	165	47	A	4.5	0			
3	0100	LABO	A	F	NR	10.75	42.5	E	2.0	0			
4													
5													
6													
7													
8													
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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. 24 Project No./Name 4/2 Emerson Creek Date 25 July 2015
 (Lat/Lon) UTM: N 41.21120 W 82.910358 Zone 18 Observers T. White
 Datum: NAD83 County Seneca State NY Quad Fire side A. Ashmore
 Site Diagram:

Site Diagram:					Net Set by Habitat		Dominant Vegetation					
					Habitat	A	B	C	D	E	F	
					River							
					Stream							
					Pond							
					Corridor	X	X	X	X	X	X	X
					Cave							
					Mine							
					Forest	X						
					Gap							
					Other							
Net		Height (m)	Length (m)	Dates								
A		7.8	9	7/25-7/27								
B		6.2	12	7/25-7/27								
C		5.2	9	7/25								
D		5.2	0	7/25								
E		5.2	0	7/27								
F		5.2	9	7/27								
Site Photographs												
Camera: Olympus												
Photo Log:												

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

- 3 **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.
- 1 **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.
- 3 **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.
- 2 **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:

tracked Seneca mgs to F7386 in woodlot on 7/27



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 859-925-9012

Mist Netting Data Form

Sheet 1 of 2

Site No. 20 Project No./Name 51201 / Emerson Creek Date 7/26/2015
 Site Location 5425 N5R 18 W08S04T29E16200
 County Seneca State NY Time Up 9:00 Time Down 2:15
 Lat/Lon : UTM: N/E 411219105 WJN 829441107 Zone 18N Datum NAD83 Observers Rain Storm
Brandon Smith

COPPERHEAD
ENVIRONMENTAL CONSULTING

Moon Phase 68%		Wax / Wane	
Time	Temp (F)	Sky	Wind
Sun		Rise	Set
		6:21 am	8:55 am
Moon		4:32 pm	2:03 am

Time	Temp (F)	Sky	Wind	No. Bats
9:50	18.9 (64)	1	0	4
11:10	17.0 (62)	1	0	12
1:50	17.0 (62)	1	0	14
2:51	15.0 (59)	1	0	14

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	9:20	LABO	Escaped										
2	9:50	EPFU	J	M	NR	12	44	D	3.5	0	0		
3	9:50	EPFU	A	F	PL	17	47	D	2.0	0	0		
4	9:50	EPFU	A	F	PL	19	50	D	2.0	0	0		
5	10:20	EPFU	A	M	TD	18	47	A	1.5	0	0		
6	10:20	EPFU	J	M	NR	16	47	D	3.0	0	0		
7	10:20	EPFU	A	F	PL	19.5	50	C	2.5	0	0		
8	10:20	EPFU	A	F	PL	20	49	C	3.0	1	0		
9	10:20	EPFU	J	M	NR	15	45	A	2.5	0	0		
10	10:20	EPFU	A	M	TD	18.5	46	A	1.0	0	0		
11	11:10	EPFU	A	F	PL	20	49	D	2.0	0	0		
12	11:10	EPFU	A	F	PL	20	48	C	2.5	1	0		
13	12:18	LACT	J	F	NR	17	52	C	3.0	0	0		
14	1:56	MYSE	A	M	NR	8	35.5	D	2.0	0	0	17131-172.287	
15													
16													
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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 Netting Data Form

Site No. 82 Project No./Name 412.61 / Emerson Creek Date 7/30/2015
 Site Location N 2R 18 W 40d 17.14161 60W
 County Seneca State NY Time Up 8:50 Time Down 2:00
 Lat / Lon : UTM: N/E 41.71615 W/N-82.941107 Zone 18 Datum NAD83 Observers Rain Storm
Brandon Smith

COPPERHEAD
© 2004-2014 Peter A. B. Johnson



COPPERHEAD

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	10:00	EPFU	A	M	TD	17	46	D	3	0	0	—	—
2	11:40	EPFU	A	F	PL	19.3		D	6	1	0	—	—
3													
4													
5													
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19													
20													
21													
22													
23													

Moon Phase 99.6%				Wax / Wane	
	Rise	Set			
Sun	6:25 am				8:52 am
Moon	8:10 pm				5:35 am

Time	Temp (F)	Sky	Wind	No. Bats
10:00	67.1	0	0	1
11:30	61.7	0	0	1
1:00	60.8	0	0	2
2:00	59	0	0	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

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p. 2

Mist Net Site Habitat Sheet

Site No. 22

Project No./Name 417.01 / Emerson Creek

Date 7/16/2015

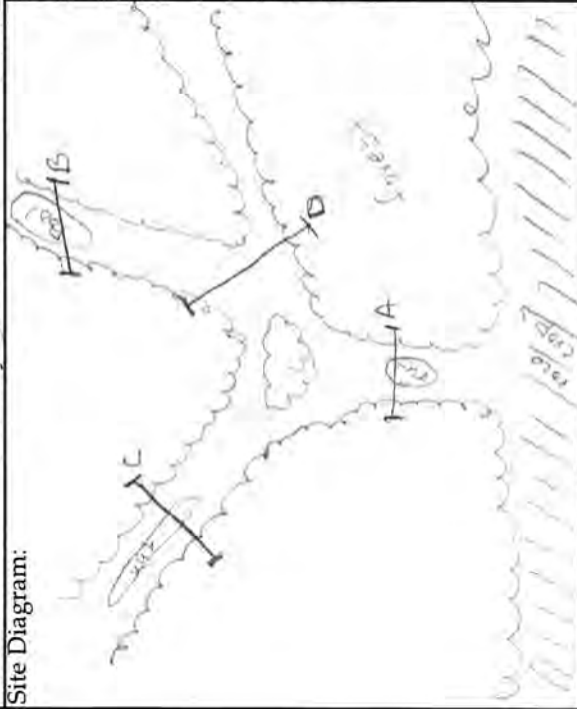
Lat/Lon; UTM: N/E 41.21965 W/N 82.944167

Zone

County Seneca State OH Quad Fiveside

Observers Ram Starn, Brandon Smith

Site Diagram:



Net	Height (m)	Length (m)	Dates
A	20ft	6m	7/16, 7/17
B	20ft	9m	7/16, 7/17
C	20ft	6m	7/16, 7/17
D	20ft	12m	7/16, 7/17
E			
F			

Dominant Vegetation						
1.	Red maple	4.	oak			
2.	Pin oaks	5.	hickory			
3.	White oak	6.				

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

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

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

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

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

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

3 **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.

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

3 **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.

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

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

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

16 **Total Habitat Score** (Should be between 4 & 12)

Comments:

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COPPERHEAD

Principle Investigator(s) Rain Storm

Location (lat/longs in D:M:S format) 41, 219165

$$\begin{array}{r} 41,219,165 \\ - 82,944,167 \\ \hline \end{array}$$

County	Site Description	Woodlot #
Seneca		N51218

Survey dates 7/26/2015

Total mist net nights 8051022

5102/08/F

[illegible]

N/R?: N = new capture, unbanded when captured, R = recapture, already banded when captured; **HABITAT** (at capture site): C = creek/riparian, B = bottomland forest, U = upland forest, P = pond, O = other (note type in margin); **ARM Banded**: L = left, R = right (typically males are banded on the right forearm and females on the left); **SEX**: M = male, F = female; **AGE**: A = adult, J = juvenile, U = unknown; **REPRODUCTIVE CONDITION**: S = scrotal, P = pregnant, L = lactating, PL = post lactating, NR = nonreproductive, U = unknown

Mist Netting Data Form

Site No. 20 Project No./Name 412.01 / Emerson Creek Date 7/25/2015
 Site Location Township 16 R 78-Meacham Prop - Inferior pond and trails @ deer stand
 County Seneca State NY Time Up 9:00 Time Down 2:00 Observers Rain Storm, Randon Smiley
 Lat/Long: UTM: N/E 41.24995 W/N -82.96202 Zone 18 Datum NAD83

COPPERHEAD
TERRESTRIAL MONITORING

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:24	EPFU	J	M	NR	16	41	C	2.5	0	—		
2	9:54	EPFU	A	F	PL	18	48	D	4.0	0	—		
3	9:54	EPFU	J	M	NR	15.5	47	D	3.5	0	—		
4	11:05	EPFU	A	M	NR	19	45	D	2.0	0	—		
5	11:05	EPFU	J	F	NR	20	49	D	1.5	0	—		
6	1:15	EPFU	A	M	TD	18.25	44	D	4.5	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: _____

* Data entered by R. Scott on 7/30/15

Moon Phase 58 %		Wax / Wane	
Rise	Set		
6:20 am	8:57 pm		
3:34 pm	1:26 am		

Time	Temp (F)	Sky	Wind	No. Bats
9:28	69.8	D	D	1
10:48	69.5	D	1	3
12:20	69.8	D	1	5
2:00	68.9	D	0	5

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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12/26/2018 3:25:18 PM

in

Case No(s). 17-2295-EL-BGN

Summary: Application Exhibit R Part 5 of 11 electronically filed by Teresa Orahood on behalf of Dylan F. Borchers