

provided by Apex to characterize foraging areas. Analysis of foraging area size was conducted in ANOVA and results were evaluated at the alpha = 0.05 level.

#### **RESULTS AND DISCUSSION**

#### Mist-Net Survey

Mist-net surveys were conducted at 42 sites: 13 sites from 23 – 31 July 2015 and 29 sites from 11-22 July 2016 (Table 1, Figure 2). A total of 438 bats of four species were captured, including eight (6 female, 2 male) northern long-eared bats (Table 2). Big brown bats (*Eptesicus fuscus*) comprised 79 percent of total captures (n=344) and eastern red bats (*Lasiurus borealis*) comprised 19 percent of total captures (n=82). Completed bat capture data sheets are provided in Appendix A, photographs of mist-net sites are provided in Appendix B, and representative photographs of each bat species captured are provided in Appendix C.

Table 1. Mist-net site locations, Emerson West Wind Project, Ohio, 2015 and 2016.

Site No. (2015)	Latitude	Longitude	Site Location
1	41.16711	-82.88433	N. County Rd. 29, Schriner Prop., Woodlot Near Pond
2	41.11582	-82.84374	Stream Corridor SE of Township Rd. And Trail 0197
4	41.15500	-82.85590	Woodlot off Reedtown Rd.
5	41.16730	-82.84803	Woodlot W of CR 4 With Intermittent Stream
6	41.18653	-82.84962	Woodlot S of CR 46
8	41.17072	-82.89307	Stream off CR 136
9	41.14356	-82.92948	Woodlot S of E Township Rd. 124
10	41.15312	-82.92621	Forest Gap; Logging Road; Pond in Forest
11	41.13920	-82.99223	CR 122
13	41.17809	-82.89062	Woodlot Logging Road off Stream
16	41.15765	-82.98926	Pond in Woodlot W of CR 28 and S Of East CR 24
24	41.17804	-82.88861	Logging Rd. Through Woodlot; Open Water of Emergent Wetland
36	41.15548	-83.00470	Woodlot S of County Rd. 24

# COPPERHEAD ENVIRONMENTAL CONSULTING

Site No. (2016)	Latitude	Longitude	Site Location
1	41.16944	-83.04229	Sugar Creek and Adjacent Ag. Field North of CR38
2	41.20319	-82.86285	Narrow Wood Lot Between Cornfields
3	41.15308	-83.02780	Small Woodlot South of E Township Rd. 130
4	41.15697	-83.02715	Open Woodlot Between Ag. Fields
5	41.10144	-82.88085	Woodlot and Ag. Field
6	41.11510	-82.87659	Woodlot N of Shrine Ditch
7	41.17536	-83.04250	Open Woodlot Adjoining Wheat Field
8	41.15554	-82.94446	Woodlot
9	41.15329	-82.94029	Inside Woodlot with Dry Stream Bed
10	41.15516	-82.90984	Woodlot W of Township Rd. 81
11	41.08601	-82.97935	Woodlot N of Hwy. and W of Cooper Rd.
12	41.16958	-83.03641	Small Woodlot off CR38
13	41.13262	-82.83958	Woodlot S of East Township Rd. 122
14	41.13567	-82.96475	Logged Woodlot Adjoining Corn Field
15	41.15335	-83.02054	Woodlot N of E Township Rd. 130
16	41.13923	-83.04941	Morrison Creek Near E Township Rd. 122
17	41.11934	-82.97486	Trails in Woodlot
18	41.13416	-82.97333	Nets in Open Areas and Dry Stream Bed in Woodlot and Edge
19	41.13266	-82.84191	Woodlot South of E Township Rd. 122
20	41.10168	-82.90656	Woodlot W of Center Heights Rd.
21	41.15591	-83.02460	Forested Area with Pond
22	41.09254	-82.83337	Woodlot Adjacent to County Line Rd. 10S
23	41.08845	-82.85002	Woodlot S of E Township Rd. 106
24	41.11955	-82.98499	Woodlot E of Powerline Cut S of 162
25	41.14166	-83.02054	Small Woodlot with Dry Creek, Surrounded by Bean
26	41.15928	-83.04395	Woodlot/Forest Edge
27	41.11877	-82.91131	Small Woodlot Surrounding Carpenter Ditch
28	41.13056	-82.99911	Woodlot W of N Township Rd. 181
29	41.09148	-82.86643	Woodlot South of Trail 0106

Table 2. Total bat captures by species, age, sex, and reproductive status, Emerson West Wind Project, Ohio, 2015 and 2016.

	Adult Male		Adult Female				Juvenile			
Species	NR	S	P	L	PL	NR	Female	Male	Escaped	Total
Eptesicus fuscus	43	49	0	42	86	8	48	58	10	344
Lasiurus borealis	2	8	0	9	13	1	25	19	5	82
Lasiurus cinereus	0	0	0	0	0	0	1	3	0	4
Myotis septentrionalis	2	0	0	4	0	0	1	0	1	8

<sup>\*</sup> NR=non-reproductive, S=scrotal, P=pregnant, L=lactating, PL=post-lactating

#### Diurnal Radio Telemetry

In accordance with the ODNR/USFWS approved study plans, three northern long-eared bats were radio-tagged and tracked to locate diurnal roost trees (Table 3). The three northern long-eared bats from sites 13, 1, and 5 captured in 2015 were not tracked because the maximum number of northern long-eared bats to be tracked had been met prior to their capture. Those individuals are not included here because they are not located within this Project. The juvenile female captured in 2016 was not radio-tagged due to its low mass (5.75 g). One of the two MYSE captured on the same night at Site 7 (2016) was not radio-tagged because they were assumed to be part of the same colony and biologists wanted to spread the telemetry effort across the Project as much as possible.

Radio-tagged bats were tracked for at least seven days each, resulting in the identification of 10 roost trees (Table 4, Figures 3-5). If a bat was roosting within a parcel where access was not allowed, the roost tree was not located for that day. The most commonly used tree species were green ash (*Fraxinus pennsylvanica*; n=4) followed by American elm (*Ulmus americana*; n=2) (Table 4). Two of the roost trees were only identifiable to genus (*Fraxinus* and *Quercus* respectively). Completed roost tree data sheets are in Appendix D and roost tree photographs are in Appendix E.

#### COPPERHEAD ENVIRONMENTAL CONSULTING

Table 3. Northern long-eared bats captured and radio-tagged during the mist-net survey, Emerson West Wind Project, Ohio, 2015 and 2016.

	Site No.	Band Number			Reproductive		Transmitter Freq. (172.xxx)
Species <sup>1</sup>	(2015)	(ODNR)	Age <sup>2</sup>	Sex <sup>3</sup>	Status <sup>4</sup>	Mass (g)	BAT ID
MYSE	13	17178	A	F	L	7.50	205
MYSE	13	17179	A	F	L	7.00	-
MYSE	1	17172	A	M	NR	7.00	-
MYSE	5	_5	J	F	NR	6.00	-

	Site						Transmitter Freq.
Species	No. (2016)	Band Number (ODNR)	Age	Sex	Reproductive Status	Mass (g)	(172.xxx) BAT ID
MYSE	7	23528	A	F	L	7.00	-
MYSE	7	23529	A	F	L	7.50	387
MYSE	17	23580	A	M	NR	7.00	267
MYSE	11	22705	J	F	NR	5.75	<del>-</del>

<sup>&</sup>lt;sup>1</sup>MYSE=northern long-eared bat

Table 4. Northern long-eared bat roost trees located during radio telemetry efforts, Emerson West Wind Project, Ohio, 2015 and 2016.

					mated tht (m)				
Roost Tree No.	Year	Tree Species	DBH (cm)	Tree	Roost	Condition <sup>1</sup>	Tree Ranking <sup>2</sup>	Bat Species Use_BAT ID	No. Calendar Days Used
140	2015	Fraxinus sp.	48.5	25.0	20.0	S	С	MYSE_205	2
314	2015	Quercus sp.	91.0	18.5	-	S	С	MYSE_205	2
860	2016	Fraxinus pennsylvanica	45.5	12.0	6.0	S	С	MYSE_387	1
196	2016	Ulmus americana	19.9	16.0	5.0	S	S	MYSE_387	1
610	2016	Fraxinus pennsylvanica	29.5	7.0	6.5	S	S	MYSE_387	1
602	2016	Fraxinus pennsylvanica	40.5	18.0	9.0	S	С	MYSE_387	1
603	2016	Fraxinus pennsylvanica	44.5	17.0	5.0	S	С	MYSE_387	1
309	2016	Populus deltoides	35.0	12.0	-	S	С	MYSE_267	1
258	2016	Carya ovata	28.1	18.0	-	S	С	MYSE_267	2
251	2016	Ulmus americana	23.7	12.0	9.0	S	S	MYSE_267	1

<sup>&</sup>lt;sup>1</sup> S = snag; <sup>2</sup> C= canopy, S = sub canopy

<sup>&</sup>lt;sup>2</sup> A=adult, J=juvenile

<sup>&</sup>lt;sup>3</sup>F=female, M=male

<sup>&</sup>lt;sup>4</sup> NR=non-reproductive, L=lactating

<sup>&</sup>lt;sup>5</sup>Escaped before band could be fitted

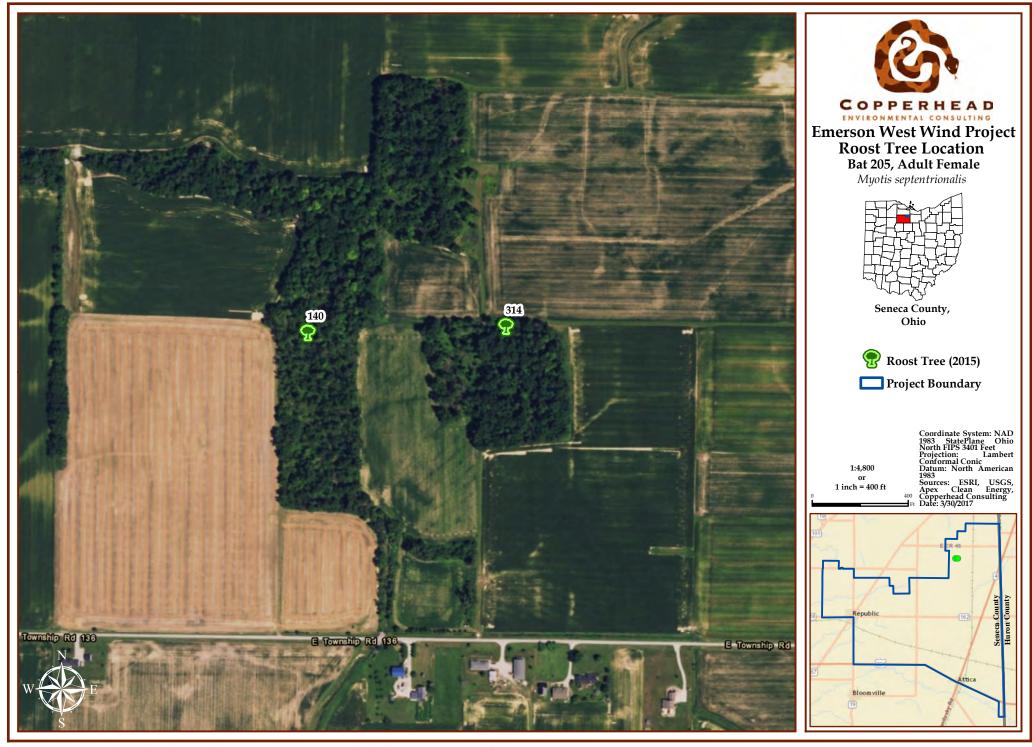


Figure 3. Roost trees used by northern long-eared bat, MYSE 205, Emerson West Wind Project, Seneca County, Ohio, 2015.

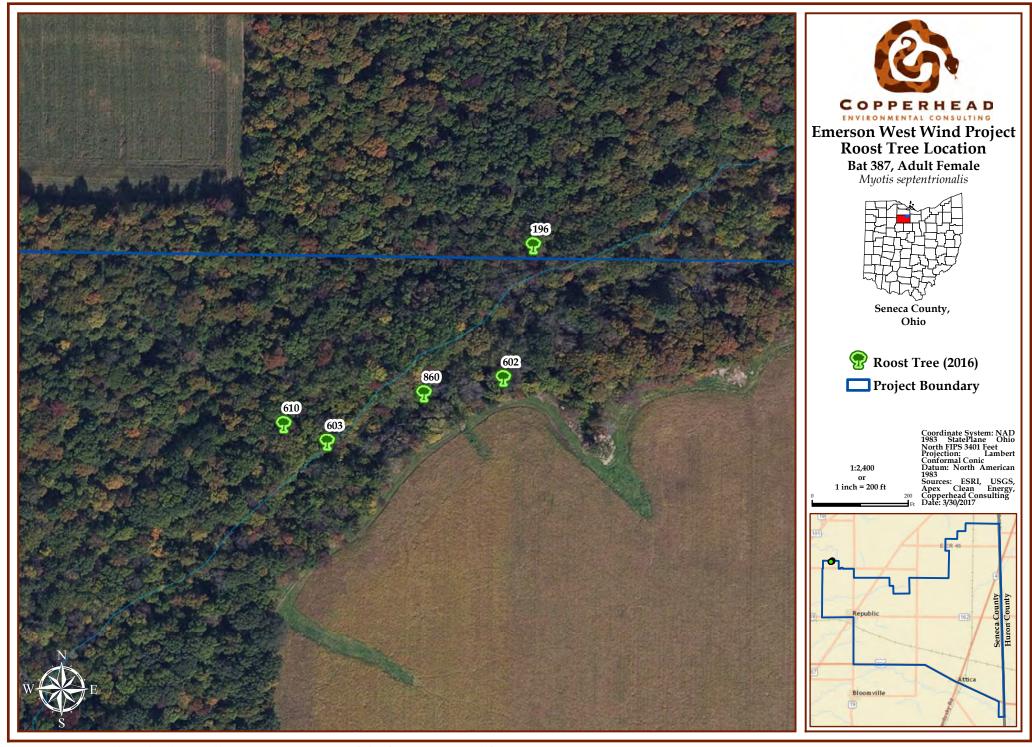


Figure 4. Roost trees used by northern long-eared bat, MYSE 387, Emerson West Wind Project, Seneca County, Ohio, 2016.

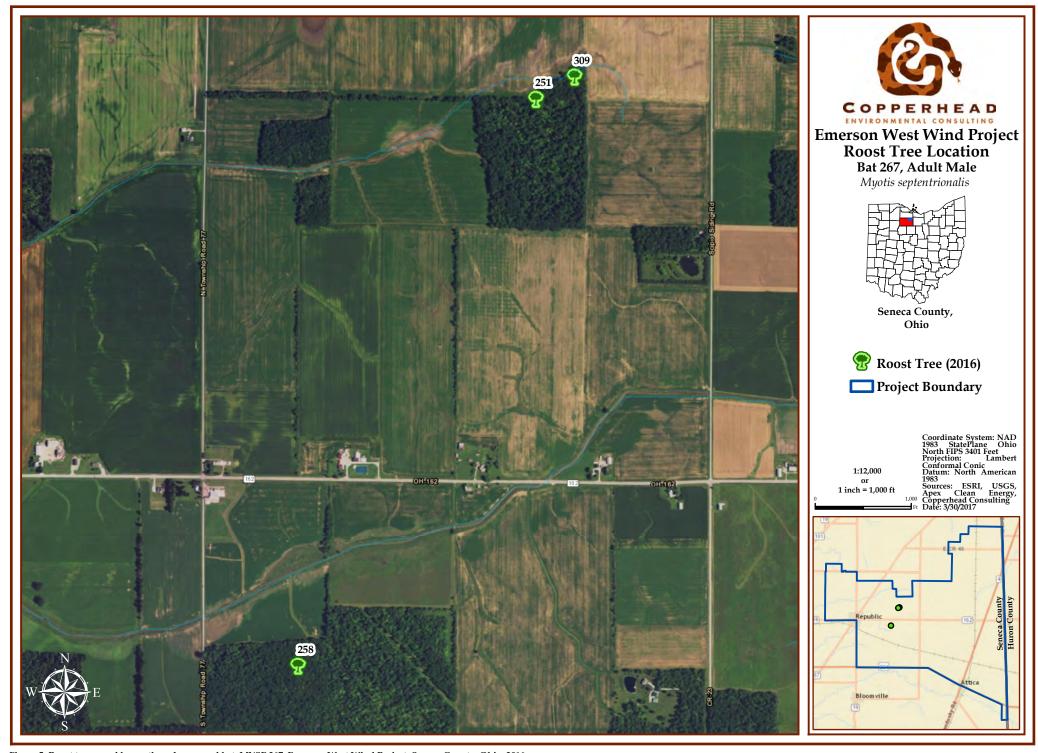


Figure 5. Roost trees used by northern long-eared bat, MYSE 267, Emerson West Wind Project, Seneca County, Ohio, 2016.

## COPPERHEAD

Radio-tagged bat(s) not located by ground crew(s) after a few hours of searching were located by an aerial telemetry crew the same day. In these cases, the aerial crew provided coordinates of the bat's estimated location to the ground crew, allowing them to quickly pick up the transmitter signal and locate the roost tree. All radio-tagged bats were accounted for during each day of tracking, except for MYSE 205, which could not be located by either the ground or aerial crew on 29 July 2015. However, MYSE 205 was heard again on 30 July 2015 where it was found in roost tree 314 (Table 5).

During tracking, all northern long-eared bats switched roost trees at least three times (Tables 5-7). The greatest number of roost tree switches (n = 8) was done by an adult female northern long-eared bat (MYSE 387) that used at least seven different roost trees over nine days (Table 6).

Table 5. Roost tree (RT) use by radio-tagged northern long-eared bat, MYSE 205, Emerson West Wind Project, Ohio, 2015.

Bat ID	Bat <sup>1</sup>	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	1-Aug	2-Aug
205	AF-MYSE	RT140	RT140	no signal	RT314	RT314	off parcel	off parcel

<sup>&</sup>lt;sup>1</sup> AF = adult female, MYSE=northern long-eared bat

Table 6. Roost tree (RT) use by radio-tagged northern long-eared bat, MYSE 387, Emerson West Wind Project, Ohio, 2016.

Bat ID	Bat1	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul
					off		off		off	RT30
387	AF-MYSE	RT860	RT196	RT610	parcel	RT602	parcel	RT603	parcel	9

<sup>&</sup>lt;sup>1</sup> AF = adult female, MYSE=northern long-eared bat

Table 7. Roost tree (RT) use by radio-tagged northern long-eared bat, MYSE 267, Emerson West Wind Project, Ohio, 2016.

Bat ID	Bat <sup>1</sup>	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul
267	AM-MYSE	off parcel	off parcel	off parcel	RT258	RT251	RT258	off parcel

<sup>&</sup>lt;sup>1</sup> AM = adult male, MYSE=northern long-eared bat

#### **Emergence Counts**

A total of 21 emergence counts were conducted in 2015 and 2016. The highest emergence count from a single roost tree was six bats, which occurred only once at RT603 on 18 July 2016 (Tables 8-10).

Table 8. Number of emerging bats from roosts used by northern long-eared bat, MYSE 205, Emerson West Wind Project, Ohio, 2015.

Roost No.	27-Jul	28-Jul	30-Jul
140	2	2	-
314	-	-	3
Total Bats	2	2	3

Table 9. Number of emerging bats from roosts used by northern long-eared bat, MYSE 387, Emerson West Wind Project, Ohio, 2016.

Roost No.	12-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul
860	3	0	-	-	-	-	-	-	-
196	-	0	0	-	-	-	-	-	-
610	-	4	0	-	-	-	-	-	-
602	-	-	-	2	1	-	-	-	-
603	-	-	-	-	-	6	0	-	-
309	-	-	-	-	-	-	-	1	0
Total Bats	3	4	0	2	1	6	0	1	0

Table 10. Number of emerging bats from roosts used by northern long-eared bat, MYSE 267, Emerson West Wind Project, Ohio, 2016.

Roost No.	22-Jul	23-Jul	24-Jul	25-Jul
258	1	2	3	1
251	-	1	1	-
Total Bats	1	3	4	1



#### **Foraging Telemetry**

Foraging data were collected for three radio-tagged northern long-eared bats within the project area: one in 2015 and two in 2016. MYSE 205 was tracked in 2015 from 28 July-1 August (Figure 6). MYSE 387 was tracked from 12-18 July, but no data were collected on 13 July due to inclement weather, resulting in six nights of foraging data (Figure 7). MYSE 267 was tracked for four nights from 19-22 July (Figure 8). The number of foraging location points collected for each bat ranged from 63 to 295 (Table 11).

Table 11. Number of nights tracked and number of foraging location points collected for three adult northern long-eared bats, Emerson West Wind Project, Ohio, 2015 and 2016.

Year	Dates	Bat ID	Sex	Repro. Status*	No. Nights Tracked	No. Points Collected
2015	28 July - 1 Aug	205	Female	L	5	63
2016	12 - 18 July	387	Female	L	6	295
2016	19 - 22 July	267	Male	NR	4	147

<sup>\*</sup> L = lactating, NR = non-reproductive

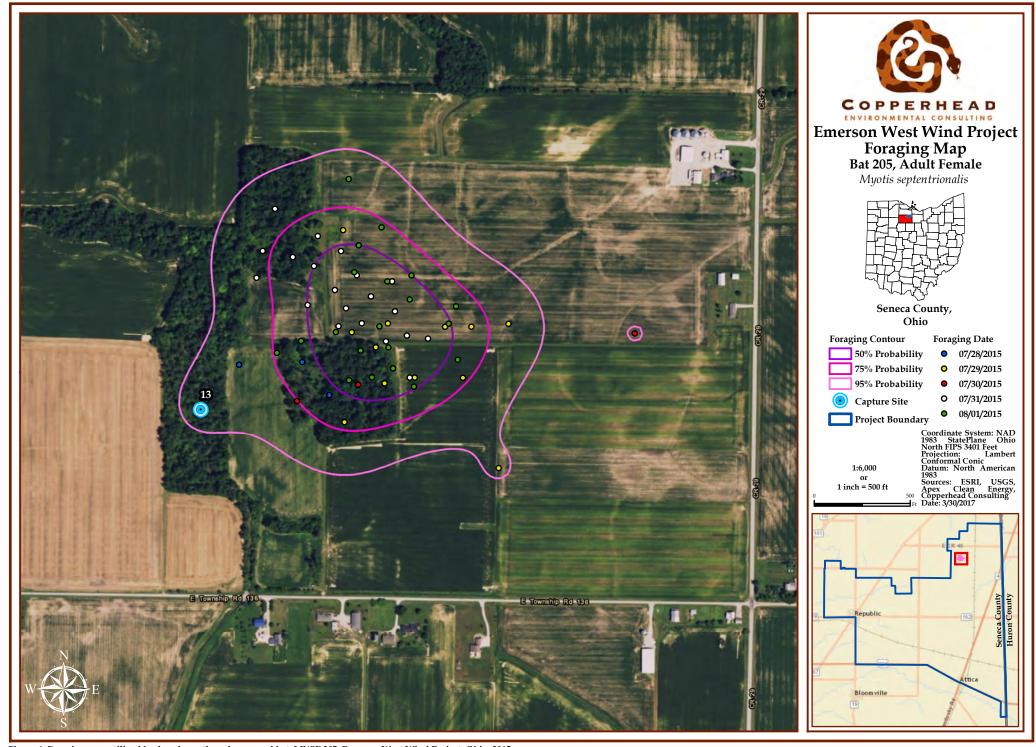


Figure 6. Foraging area utilized by female northern long-eared bat, MYSE 205, Emerson West Wind Project, Ohio, 2015.

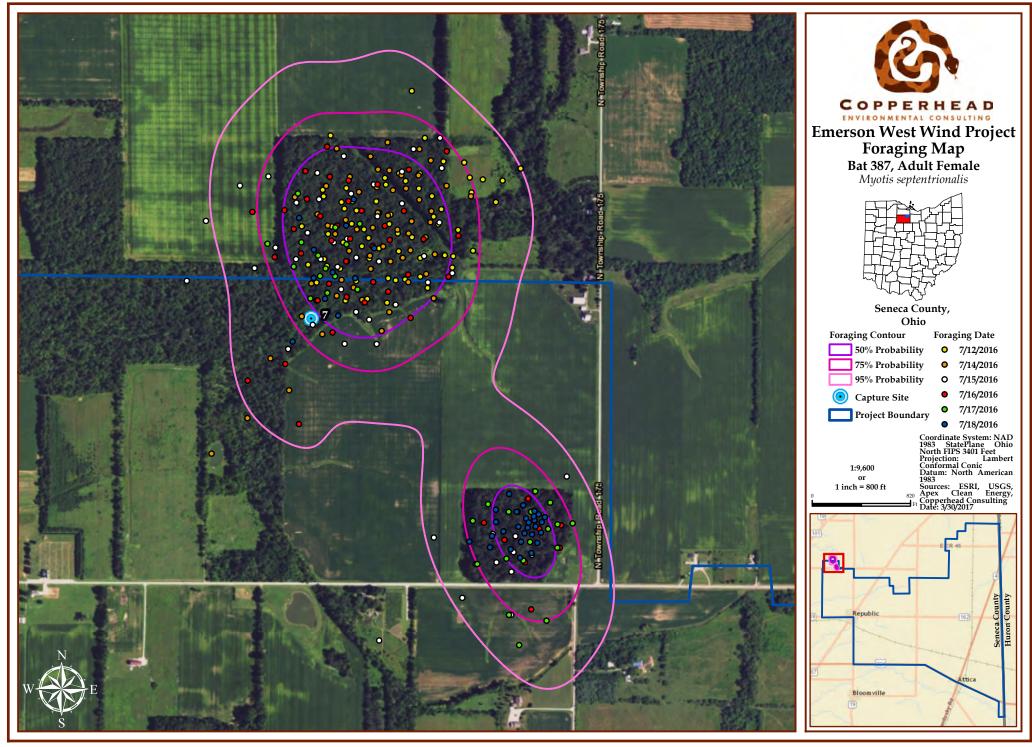


Figure 7. Foraging area utilized by female northern long-eared bat, MYSE 387, Emerson West Wind Project, Ohio, 2016.

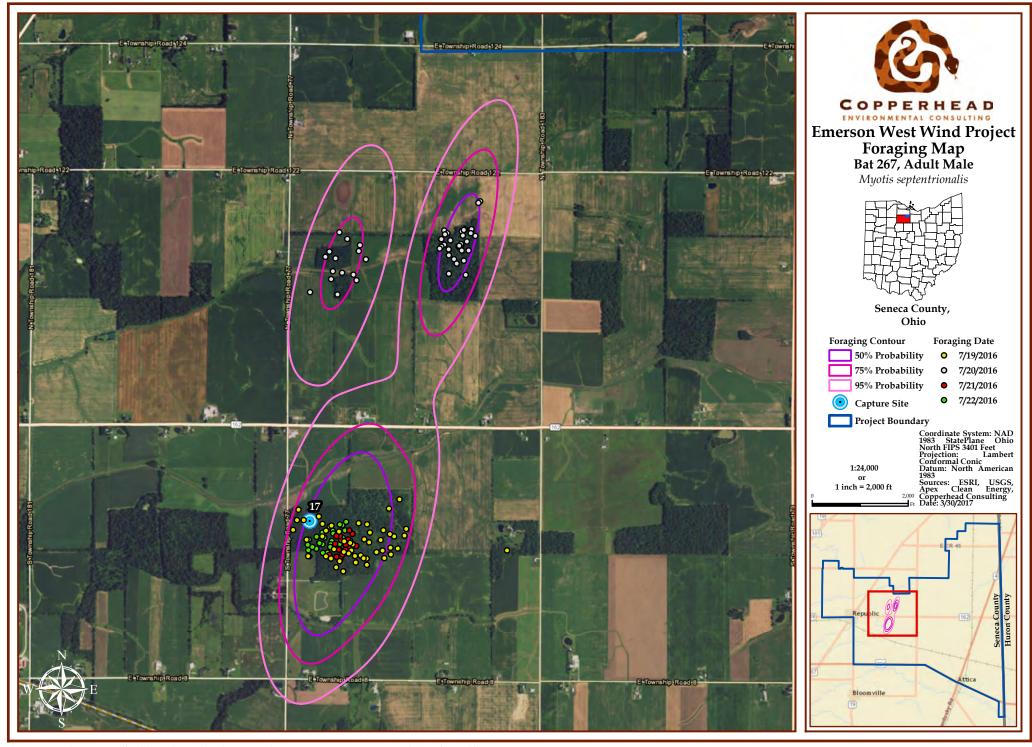


Figure 8. Foraging areas utilized by male northern long-eared bat, MYSE 267, Emerson West Wind Project, Ohio, 2016.

## COPPERHEAD

There was a large range in the size of foraging areas among bats within each foraging area contour (Table 12, Figure 9), but no difference in individual foraging area sizes ( $F_{4,4}$  = 4.923, P = 0.076, Figure 13) within each foraging area contour (Table 13). The farthest foraging point from a known roost for MYSE 205 was 0.5 kilometers, 1.0 kilometers for MYSE 387, and 2.2 kilometers for MYSE 267.

Table 12. Mean foraging area sizes for three adult northern long-eared bats, Emerson West Wind Project, Ohio, 2015 and 2016.

		Foraging	Area (acres)		_
mean 95% contour	range	mean 75% contour	range	mean 50% contour	range
353.7	52.6 - 786.6	152.9	22.7 - 338.6	68.6	10.6 - 148.1

Table 13. Foraging area sizes for adult northern long-eared bats, Emerson West Wind Project, Ohio, 2015 and 2016.

				Fora	ging Area (a	cres)
Year	Dates	Bat ID	Sex	95% contour	75% contour	50% contour
2015	28 July - 1 Aug	205	Female	52.6	22.7	10.6
2016	12 - 18 July	387	Female	221.8	97.3	47.1
2016	19 - 22 July	267	Male	786.6	338.6	148.1

Most foraging location points of all bats were within forested habitat (81.4%), with some points within agricultural fields (16.6%) and some within forested fencerows (1.4%, Table 14, Fig 10). For those points outside forest or forested fencerows, the mean and median distance from forest edge for all bats were 58.2 meters and 41.5 meters, respectively.

Table 14. Foraging habitat use by number of location points of three northern long-eared bats, Emerson West Wind Project, 2015 and 2016.

Habitat	Female Bat 387	Male Bat 267	Female Bat 205	Total
Forest	259	130	22	411
Fence Row	4	3	0	7
Field	32	14	38	84
Total No. points	295	147	60	502

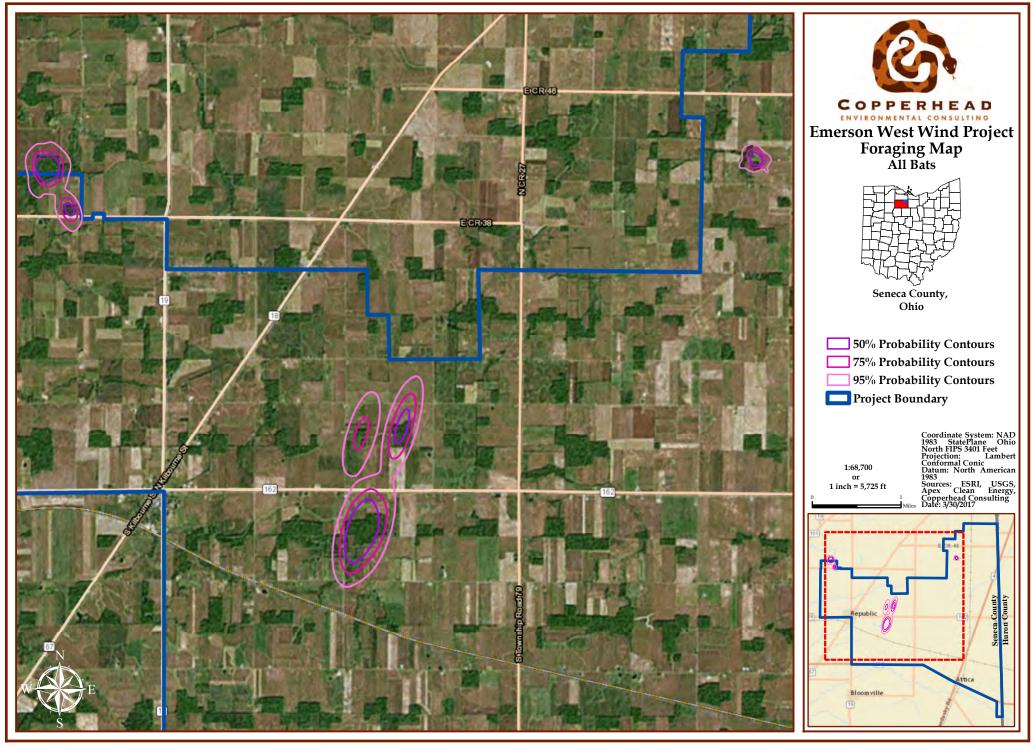


Figure 9. Foraging areas of three northern long-eared bats, Emerson West Wind Project, Ohio, 2015 and 2016.

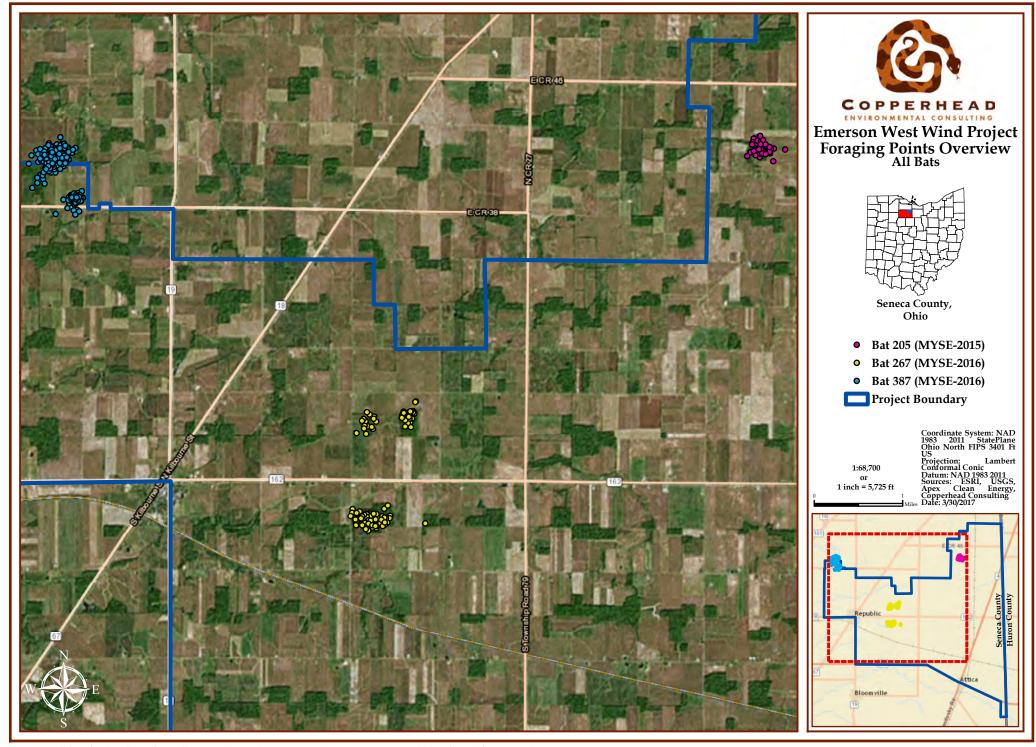


Figure 10. All foraging location points collected on three adult long-eared bats, Emerson West Wind Project, Ohio, 2015 and 2016.



#### **CONCLUSIONS**

No Indiana bats were captured within the Project area in 2015 or 2016. Eight northern long-eared bats were captured. No other state-listed bats were captured.

Foraging areas of northern long-eared bats were primarily restricted to forest and forest edges, with individual foraging location points well clustered. All northern-long eared bats were captured within their respective estimated foraging areas. On average, bats located foraging or commuting in open areas were within 58 meters of forest habitat, suggesting that northern long-eared bats in this area show a preference for foraging and commuting within forests, forested fence rows, and forested waterways.

The range of foraging area sizes identified during this study was consistent with the foraging telemetry study conducted on Myotid bats in 2015 (Wetzel et al. 2016). The male northern long-eared bat had the largest foraging area of the three bats analyzed in this study, utilizing a greater number of woodlots than the other bats during the time they were tracked. The 2015 female bat had the smallest home range, but also appeared to be using an area with less available forested habitat based on the aerial imagery, which was the preferred habitat for the three bats overall.

Results of this study suggest that siting of turbines away from forested habitat should greatly reduce the risk of turbine collision during summer for female northern long-eared bats and to a lesser extent for males.



#### LITERATURE CITED

- Brack Jr., V. and Whitaker. 2001. Foods of the northern myotis, *Myotis septentrionalis*, from Missouri and Indiana, with notes on foraging. Acta Chiropterologica 3(2): 230-210.
- Hall, E. R. 1981. The Mammals of North America. Volume I. John Wiley & Sons, New York, NewYork
- Ohio Division of Natural Resources (ODNR). 2009. On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio: An Addendum to the Ohio Department of Natural Resource's Voluntary Cooperative Agreement.
- Ohio Division of Natural Resources Division of Wildlife. 2015. Ohio Division of Wildlife and USFWS (OH Field Office) Guidance for Bat Permitted Biologist.
- R Core Team (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.
- Reichard, J. D. and T. H. Kunz. 2009. White-nose syndrome inflicts lasting injuries to the wings of little brown myotis (*Myotis lucifugus*). Acta Chiropterologica, 11(2) 457-464.
- United States Fish and Wildlife Service (USFWS). 2015. Range-wide Indiana Bat Summer Survey Guidelines.
- United States Fish and Wildlife Service (USFWS). 2016. Range-wide Indiana Bat Summer Survey Guidelines.
- Wetzel, T.A.N., P.L. Roby, S.T. Samoray, S. Burke, and C.A. Leftwich. 2016. Revised: Summer 2015 Bat Survey for the Proposed Republic Wind Project, Seneca and Sandusky Counties, Ohio. Business Confidential Not for Public Disclosure. 251 pp.



## APPENDIX A

**Mist-Net Data Sheets** 

at/L	on; UTM	MCR 10 Meca 1: NyE 41	167111	State_	WN	-87.	8842	34	Zone	ne Dowi	Datum_	JAP83	Observe	rs Ram	Storm don Sin	JE .	PPER	HEAL
#	Time	Species	Age	Sex	Repr.	Magg	FA (mm)		Height (m)	WDI	G/H/B/T	Band# Type	Freq.		se  DD %			Vax / Wan
1		.6 B														Rise		Set
2	No	101715		L 2				1		-	1			Sun		6:20	nam	8:51 pv
3											Z i			Moon		9:23	pm	9:10 an
4																		
5					4									Time	Temp (F)	Sky	Wind	No. Bats
7	8		Ji. I	1										9:00	68	1	7	0
8														10/61	63.5		D	0
9														2:00	58,1	1	n	0
10															1		1	
11										-								
12							I -											
13					1	1		-		1 1								
14						7 - 4												
15							7 1			1 - 1								
16															DOMESTIC STATE	Sky Code		
17					150					1 1				0	Clear			
18	_													1	Few Cloud			
19				2 2									-	2	Partly Clou			
20			-			- 1							-	3	Cloudy or			
21													-	4	Fog or smo			
22														5	Drizzle or	-		
24							-				-			6	Heavy rain	- thunde	r storm	
25			-										7					
26										_			-			fort Wind	Scale	
27							-	-						0	Calm: <1 m			
28					7						-			1	Light air: 1			
29														3	Light breez Gentle bree			
30														4	Moderate b			
MYA MYS	lis (LABO U); Myoti O); Nyctic	viations: Coryno ); Lasiurus cine is grisescens (M reius humeralis tions: Male: M;	reus (LAC YGR); My (NYHU);	CI); Lasiu otis leib Perimy	irus semi ii (MYLE otis subfl	nolus (L ); Myotis avus (PE	ASE); Lasio s lucifugus SU); Tadai	nycteris (MYLU ida bras	s noctivaga ); Myotis se siliensis (TA	ns (LAN eptentrio ABR)	O); Myotis a nalis (MYSE	ustrorinario	IS.	Please Re P.O. Box 2 (859) 925-	turn to: 73, Paint L		, 40461.	p. 1

County				CNYIN	E.F. 153	X	1524	b+ m	ONI	ONVIO						10	-
	vieca	00.	State	OH		Time Up	9:1	6 Tin	ne Down	200			Rai	n Shiv	752		29
at/Lon; U	n N Counting	67111		W/N_	-2/1	88423	54	Zone	_	Datum_	JAD83	Observe	rs Bvo	indon S	# C 0	PPE	RHEAD
# Tim	7 - 3 - 3	Age	Sex	Repr.	Mass (g)	FA (mm)		Height (m)	WDI	G/H/B/T	Band# Type <u>ObN</u> R	Freq.	Moon Phas				Vax / Wan
1 11:2	J MYSE	A	M	ND	7	36	1	2.6	0	0	17172	_			Rise		Set
2			7 -										Sun		6:2	Zarr	8.550n
3			71-0	E-					5			1	Moon		5.51	own -	Dillean
4												1 =					
5											-		Time	Temp (F)	Sky	Wind	No. Bats
7	+												9130	108	1	3	
8				-									11:13	610	4	6	()
9													2 10/2	(02	-1-	0	
10													- V - UU	00		12	
11											-					1	
12												-					
13																	
14																	
15																	
16						-									Sky Code		
17													0	Clear			
18													1	Few Cloud	İs		
19				z = 1					-				. 2	Partly Clo	udy		
20													3	Cloudy or	overcast		
21													4	Fog or smo			
22								h 1	11				.5	Drizzle or	light rain		
23								1		1 == 1			6	Heavy rain	ı - thunde	r storm	
24																	
25 26															fort Wind	l Scale	
27		-											0	Calm: <1 r			
28	-												1	Light air: 1			
29	-	-											2	Light bree			
30		-					_						3	Gentle bre			
	I irvey: Unit typ	20		I Init #		Date		Chart ti	10	-	Chan time		4	Moderate l	oreeze: 11	-16 mph	
cousiic St	avey. Officity		_	Offit #	_	Date		Start tin Start tin	ie		Stop time_		Please Re	Krone Ke.			
						Date		Start tin			Stop time_		Charles and the State of the second		ial IV	10161	
Veatherpre	oofing					Coordin					Stop time_		P.O. Box (859) 925-		LICK, KY	, 40461.	
comments	-											-					p. 2

Lat/Lon	1) UTM: NYE 41 16711 WYN - 27 2843	31	Zone_	-10	Observers_	Ran	Stev	- Br	and	DV DV	w
Datum: Site Dia	:NEO93 County Severa State		Length	100	1		Domi	nant Ve	rotation		
Dite Dia	agrant.	Net (m)	(m)	Dates	1 1364	Mapl			getation	v h.da	
	3 /	A Cost	(am	7177 12015		HIE VEC		5 6	hoor		عال
	3 }	B 704-	lom	76717015		THE LOD		6.	-		
	1) IC Creek	2 C 704	low	777106							_
ī.		D 3084	am	7 27 2015			Net :	Set by H	labitat		
Te	- 1 2 m	Е			Habitat	A	В	C	D	E	5
3 Ar	WINTER X	F	F 1		River	1 -					
	10 min				Stream						
	the time	A CUI FU	1		Pond						
	some frame	Site Photogr			Corridor	X	X	X	X		
	ALIA O	Camera: Photo Log:		10.10	Cave						
	Thomas -	Photo Log:_	10		Mine Forest						-
	The territories	1			Gap						
					Other						-
					Other						l
ndiana	Bat Habitat Characterization (Choose appropriate Roost habitat: 1. Poor: No or few snags >= 5" DBH wit				ures (cracks	crevices	etc)				
	Roost habitat: 1. Poor: No or few snags >= 5" DBH with 2. Moderate: Snags with sloughing bark or other roost feat 3. Optimal: Snags with sloughing bark or other roost feat Water Resources: 1. Poor: bat drinking resources not public 2. Moderate: Ephemeral or intermittent streams or pondopenings or canopy gaps allow bats easy access to the result 3. Optimal: Streams or ponds (including road ruts) preseavailable.  Forest Structure: (if hardwoods are absent or nearly absent 1. Poor: Habitat even aged and young. Trees smaller that 2. Moderate: some diversity in age of trees in the stand, may be present but rare. 3. Optimal: Mature forest. Diverse age classes of trees present that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surrounding sites.	h sloughing bark eatures present 5- fures present >1- fures present site, ed areas present source, ent that appear to ent or if stand is in 5 inch DBH. U Trees 5 to 15 inch resent. Trees > 1	or other -15 inch DB 5 inch DB but too cl o offer dri monocul Juderstor hes preser 5 inch DE	usable roost feat DBH within 1000 EH within 1000 fe luttered to allow nking resource to ture, area autom y growth clutterent. Understory co BH frequent. Varied. Few mature	feet of forestee eet of forestee many bats to hroughout th atically quali ed and restri- clutter domin rying tree hei trees present	ted areas.  d areas.  d drink ear  ne majority  ifies as a 1  cts flying/  iant but no	sily or simu y of the sur : poor). 'foraging of ubiquitou reefalls allo	nmer. Fly us. Trees	greater th	resource: nan 15″ I	овн
3 3 2	Roost habitat: 1. Poor: No or few snags >= 5" DBH with 2. Moderate: Snags with sloughing bark or other roost feat 3. Optimal: Snags with sloughing bark or other roost feat Water Resources: 1. Poor: bat drinking resources not public 2. Moderate: Ephemeral or intermittent streams or pondopenings or canopy gaps allow bats easy access to the result 3. Optimal: Streams or ponds (including road ruts) preseavailable.  Forest Structure: (if hardwoods are absent or nearly absent 2. Moderate: some diversity in age of trees in the stand, may be present but rare. 3. Optimal: Mature forest. Diverse age classes of trees pregaps that facilitate bat foraging.	h sloughing bark atures present 5-1 tures present >1 tures present >1 tures present source, ent that appear to ent or if stand is n 5 inch DBH. UTrees 5 to 15 inch present. Trees > 1 predominantly and wooded fer	or other -15 inch IB 5 inch DB but too cl o offer dri monocul Juderstor hes preser 5 inch DE un-forestance rows.	usable roost feat DBH within 1000 BH within 1000 fe luttered to allow nking resource to ture, area automy growth clutterent. Understory of BH frequent. Varied. Few mature Little connectioned stands via wo	feet of forested many bats to hroughout the atically qualified and restrict clutter dominarying tree heit trees present to adjacent poded stream	d areas.  d area	sily or simu y of the sur : poor). foraging of ubiquitou reefalls allo	nmer. Fly us. Trees w for free ner areas	greater the quent smale	resource: nan 15″ I	овн
3 3 2	Roost habitat: 1. Poor: No or few snags >= 5" DBH with 2. Moderate: Snags with sloughing bark or other roost feat 3. Optimal: Snags with sloughing bark or other roost feat Water Resources: 1. Poor: bat drinking resources not public 2. Moderate: Ephemeral or intermittent streams or pondopenings or canopy gaps allow bats easy access to the result 3. Optimal: Streams or ponds (including road ruts) preseavailable.  Forest Structure: (if hardwoods are absent or nearly absolutions. Habitat even aged and young. Trees smaller that 2. Moderate: some diversity in age of trees in the stand, may be present but rare. 3. Optimal: Mature forest. Diverse age classes of trees present that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surrounding site 2. Marginal: Trees present in the form of small woodlots 3. Optimal: Area is largely forested. Wooded stands are Total Habitat Score (Should be between 4 & 12)	h sloughing bark atures present 5-1 tures present >1 tures present >1 tures present source, ent that appear to ent or if stand is n 5 inch DBH. UTrees 5 to 15 inch present. Trees > 1 predominantly and wooded fer	or other -15 inch IB 5 inch DB but too cl o offer dri monocul Juderstor hes preser 5 inch DE un-forestance rows.	usable roost feat DBH within 1000 EH within 1000 fe luttered to allow nking resource to ture, area autom y growth clutterent. Understory co BH frequent. Varied. Few mature Little connectioned stands via wo	feet of foresteet of foresteet of foresteet of foresteet many bats to hroughout the atically qualitied and restrictutter dominarying tree heitrees present to adiacent to adiacent	ted areas.  d areas.  d areas.  d drink ear  me majority  ifies as a 1  cts flying/ ant but no  ight and to  t not connict forested a  n, fence roo  n to:	sily or simuly of the sur epoor). foraging of ubiquitoureefalls allo ected to other w, or other	us. Trees w for free mer areas	greater the quent smale	resource: nan 15″ I	овн

Site L Coun Lat/L	ocation_ tySe_/ .on; UTM	Stream ( ne CQ 10 1/E 4/-)	orrid 1758,	State_	OH (W)N	-82	Time Up	whsh 205 74	P Rd Tin Zone	9 a	Datum A	1 019 8-0155 VAD83	Observe	rs K. Pear	man, A	Trousd	<b>@</b>	
#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.	Moon Phas	e 60%		(	Wa
1	2340	EPFU	A	M	NR	17.0	45	A	25	6		-	-			Rise		T
2	0015	EPFU	A	M	MR	16.25		C	0,5	O	-	-	-	Sun		06	20	
3	0110	LABO	J	F	NZ	10.5		C	3.5	0	-		-	Moon		1600		1
4									2.0	-								_
5														(mt. i.e.)	T (P)	63	1177. 1	Т
6							C	V. =	1			Tales and		Time	Temp (F)	Sky	Wind	
7								7						2100	68.9	2	0	T
8									) -					2209	105.1	3	1	1
9														2307	66.4	2	7	t
10														0.007	646	3	0	t
11	A								1					0140	62.8	2		t
12															Q.S.TD.			t
13				1														t
14														1				+
15															-			-
16								7								Sky Code		
17			12.1	7			/							0	Clear			_
18			-	11-				-						1	Few Cloud	ds		
19														2	Partly Clo			
20			-		7	-								3	Cloudy or			_
21														4	Fog or sme			
22			9 14				-							5	Drizzle or		_	_
23														6	Heavy rais		rstorm	
24				- 1								- 7	-		I san j tan		. Joseph	-
25									31	1			-		Beau	fort Wind	Scale	_
26	1	_								- 7				0	Calm: <1 r		2.46.4	-
27			-												Light air: 1			-
28			3	1							0 1			2	Light bree		h	
29					7						1			3	Gentle bre			
30				1										4	Moderate		_	-
borea (MYA	alis (LABO AU); Myot	viations: Coryno ); Lasiurus ciner is grisescens (M) eius humeralis (	eus (LA0 YGR); M	CI); Lasi: votis leil	urus semi	inolus (L E); Myoti	ASE); Lasi s lucifugus	onycteri (MYLL	is noctivaga I): Myotis s	ns (LAN	O): Myotis	ustroripari	S	Please Res P.O. Box 7 (859) 925-	turn to: 73, Paint I			

Mist Netting Data Form Site No. 2 Project No./Name 4/2 / APEX Emelson Creek Wind Site Location Stream Corridor SE of CR9 & Trail 0/97 County Schera State OH Time Up 2048 Time Down 0148
Lat/Lon; UTM: N/E 41.11 582 W/N - 82.84374 Zone Datum NAD 83 Observers K. Pearman Freq. Band# Moon Phase 97 % Height G/H/B/T FA (mm) Wax / Wane WDI Time Species Age Sex Repr. Net (g) (m) Type\_ MR B 5 0 2135 EPFU 46 Rise Set F 12.25 EPFU 50 0 0625 2218 PL 20.0 B 6 Sun 1050 2245 EPFV F PL 21.0 49 B 0 0642 6 Moon 0155 LABO 107 41 0 5 Time Temp (F) Sky Wind No. Bats 6 7 72100 74.1 8 2200 69.6 9 2300 65,4 0000 10 0100 60.6 11 12 0100 592 13 6/13/50 14 15 16 Sky Code 17 Clear 0 18 Few Clouds 1 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 27 Light air: 1-3 mph 28 Light breeze: 4-6 mph 2 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_ Stop time\_ Unit# Date Start time Date Start time Please Return to: Stop time\_ Date Start time Stop time\_ P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing (859) 925-9012 Coordinates Comments: p. 2

The state of the state of the state of the state of	N/E 41. 11582 W/N -82, &	L13-	14	Zone		Observers_	K Fen	LMan	A	01.14	adon	
Datum: NAT	093 County Severa State	DH	Quad	^	rton							
Site Diagram:				Length				Domin	ant Veg	getation		
(120	TIMPRA 9	Net	1000	(m)	Dates		es Belty		4. Ace	V.502	char	win
120	~ 1 102	Α	5.2	9	31 Tules		fsia					
11	Conted City	В	5.2	9	31 July	3. Burr	45 774	Luctus	6			
3 1	Sec Form To *	C	7.8	12	31 July			*****				
2	11 6 11	D	5,2	9	31 July	77.174.7			Set by H		F 72	T
4		E			.0	Habitat	A	В	С	D	Е	F
-		F				River Stream						
	7					Pond						
	Torosted	Site	Photogr	raphs -	^	Corridor	V	1	1	-		
1	N	100	nera:	KK	1	Cave						
10	1 - 1 -	100	to Log:_	4		Mine						
July 1	Matied	11,156				Forest						
10	0.5					Gap						
1						Other						
										1 (1)		
diana Dat II	abitat Characterization (Choose appropriate	_	1	L. Litera	Chouse a Carlet A		_	-			-	_
			hing harl	c or other	usable roost feat	ures feracks	crevices e	tc)				
2. Mod 3. Opt Water 2. Mod openir 3. Opt availal Forest 1. Poo 2. Mod may b 3. Opt gaps ti Land 6 2. Mar	Structure: (if hardwoods are absent or nearly absent: Habitat even aged and young. Trees smaller that derate: some diversity in age of trees in the stand. The present but rare. Simal: Mature forest. Diverse age classes of trees properly hat facilitate bat foraging.  Cover: 1. Poor: Square kilometer surrounding site reginal: Trees present in the form of small woodlots.	atures pures pesent a darea ource. In that ent or in 5 includes frees 5 esent.	present 5 resent >1 it the site is present appear to f stand is h DBH. It to 15 inc Trees > 1 minantly	5-15 inch Diese but too offer draws monocu Understo ches presented to the force of	DBH within 1000 for all within 1000 for all within 1000 for all own inking resource to the liture, area automary growth clutter ent. Understory of BH frequent. Valued. Few mature and Little connection.	feet of foresteet of foresteet of foresteet of foresteet omany bats to hroughout the atically qualified and restrictly dominarying tree heitrees present on to adjacent	ed areas. I areas. O drink eas ne majority fies as a 1: cts flying/ ant but no	of the sun poor). foraging tubiquitou eefalls allo ected to othereas.	nmer. Fly us. Trees ow for free ner areas o	greater t quent sm of trees.	resources than 15" I	овн
2. Mod 3. Opt Water 2. Mod openir 3. Opt availal Forest 1. Poo 2. Mod may b 3. Opt gaps to Land 6 2. Mar	derate: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimale: Ephemeral or intermittent streams or pondengs or canopy gaps allow bats easy access to the restimal: Streams or ponds (including road ruts) preseble.  Structure: (if hardwoods are absent or nearly absorted the streams of the streams or ponds of trees in the stand. The present but rare.  Structure: (if hardwoods are absent or nearly absorted the stand of the stan	atures pures pesent a darea ource. In that ent or in 5 includes frees 5 esent.	present 5 resent >1 it the site is present appear to f stand is h DBH. It to 15 inc Trees > 1 minantly	5-15 inch Diese but too offer draws monocu Understo ches presented to the force of	DBH within 1000 for all within 1000 for all within 1000 for all own inking resource to the liture, area automary growth clutter ent. Understory of BH frequent. Valued. Few mature and Little connection.	feet of foresteet of foresteet of foresteet of foresteet omany bats to hroughout the atically qualified and restrictly dominarying tree heitrees present on to adjacent	ed areas. I areas. O drink eas ne majority fies as a 1: cts flying/ ant but no	of the sun poor). foraging tubiquitou eefalls allo ected to othereas.	nmer. Fly us. Trees ow for free ner areas o	greater t quent sm of trees.	resources than 15" I	овн
2. Mod 3. Opt Water 2. Mod openir 3. Opt availal Forest 1. Poo 2. Mod may b 3. Opt gaps ti Land 6 2. Mar 3. Opt	derate: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimale: Ephemeral or intermittent streams or pondengs or canopy gaps allow bats easy access to the restimal: Streams or ponds (including road ruts) preseble.  Structure: (if hardwoods are absent or nearly absorted that even aged and young. Trees smaller that derate: some diversity in age of trees in the stand. The present but rare.  Simal: Mature forest. Diverse age classes of trees probat facilitate bat foraging.  Cover: 1. Poor: Square kilometer surrounding site reginal: Trees present in the form of small woodlots.	atures pures pesent a darea ource. In that ent or in 5 includes frees 5 esent.	present 5 resent >1 it the site is present appear to f stand is h DBH. It to 15 inc Trees > 1 minantly	5-15 inch Diese but too offer draws monocu Understo ches presented to the force of	DBH within 1000 for all within 1000 for all within 1000 for all own inking resource to the liture, area automary growth clutter ent. Understory of BH frequent. Valued. Few mature and Little connection.	feet of foresteet of foresteet of foresteet of foresteet omany bats to hroughout the atically qualified and restrictly dominarying tree heitrees present on to adjacent	ed areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no ight and tr i not conne forested a n, fence rov	of the sun poor). foraging tubiquitou eefalls allo ected to othereas.	nmer. Fly us. Trees ow for free ner areas o	greater t quent sm of trees.	resources than 15" I	овн
2. Mod 3. Opt Water 2. Mod openir 3. Opt availal Forest 1. Poo 2. Mod may b 3. Opt gaps ti Land 6 2. Mar 3. Opt	derate: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimal: Snags with sloughing bark or other roost featimale: Ephemeral or intermittent streams or pondengs or canopy gaps allow bats easy access to the restimal: Streams or ponds (including road ruts) preserble.  **Structure**: (if hardwoods are absent or nearly absert Habitat even aged and young. Trees smaller that derate: some diversity in age of trees in the stand. The present but rare.  **Eimal: Mature forest. Diverse age classes of trees probat facilitate bat foraging.  **Cover**: 1. Poor**: Square kilometer surrounding site reginal: Trees present in the form of small woodlots timal: Area is largely forested. Wooded stands are	atures pures pesent a darea ource. In that ent or in 5 includes frees 5 esent.	present 5 resent >1 it the site is present appear to f stand is h DBH. It to 15 inc Trees > 1 minantly	5-15 inch Diese but too offer draws monocu Understo ches presented to the force of	DBH within 1000 for all within 1000 for all within 1000 for all own inking resource to the liture, area automary growth clutter ent. Understory of BH frequent. Valued. Few mature and Little connection.	feet of foresteet of foresteet of foresteet of foresteet of foresteet on the atically qualities and restrictly dominated and restrictly free height trees present on to adjacent poded stream	ed areas. I areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no ight and tr r not conne forested a n, fence rov n to:	of the sun poor). foraging it ubiquitor eefalls allo ected to other v, or other	nmer. Fly us. Trees ow for free ner areas o wooded	greater t quent sm of trees.	resources than 15" I	овн

+

Lat/Lo	m?UTM: N/E 9/-1/582 WN -82.84	B74	Zone_		Observers_	K. Pe	armar	1. A. T.	rouse	le	
Datun	n: NADOS County Serveca State	OH Quad	Cent	erton	1 1 1						
Site D	iagram:) A C C C C C C C C C C C C C C C C C C	Heigl	nt Length	1	The state of		Domir	ant Veg	etation		- 1
	Pared road Bridge	Net (m)	(m)	Dates	1. Popu		repider	1,	OK JB	celia	nev
1	LINNA POLITICAL	A 5%	1 4	26 July	2. Gledi						
1	Macon come de Al	B 7.8	12		3. Quer	رط جي	INCHAILS.	6		-	-
	A W W W W W W W W W W W W W W W W W W W	C 5.3				المهد عهد ا	Not 6	at her II	- Initat		
1	10 focal and B. M. B.	D 50	9		Habitat	A	B	et by H	D	E	E
1	01 18 00 00 00	E	-		100000000000000000000000000000000000000	A	D	·	D	E	r
		2 F			River Stream	- /					
	1 63 - 1 m C \$1 / 2/1	1	+		Pond	V					
1	The same of the same	Site Photo	graphs		Corridor			1/	V		
1	1 - 10 mg 1 s 12 4	Camera:	Kelsey	S	Cave			· V	-		
	5) 700 . 000 112 12 12	Photo Log			Mine						
-	- 11 + 11 - 12 - 12 - 12 - 12 - 12 - 12	)			Forest		1				
3	M ( , Moog 101) de M D / M				Gap		~				
1	second forest in the 18	5			Other						
2 -	to Wasses & The Control of the Contr								4		
-	tall grass revort I will the										
_	no Bat Habitat Characterization (Choose appropriate	score for eac	h habitat	characteristic	)					•	
diar	na Bat Habitat Characterization (Choose appropriate  Roost habitat: 1. Poor: No or few snags >= 5" DBH with  Moderate: Snags with sloughing bark or other roost feat  Optimal: Snags with sloughing bark or other roost feat  Water Resources: 1. Poor: bat drinking resources not pr  Moderate: Ephemeral or intermittent streams or ponder  openings or canopy gaps allow bats easy access to the res	a sloughing ba atures present tures present resent at the si ed areas prese ource.	ark or other : 5-15 inch I >15 inch DE te. nt but too c	usable roost fea DBH within 100 BH within 1000 luttered to allow	atures (cracks, 0 feet of forest feet of forested w many bats to	ed areas. d areas. o drink eas	sily or simu				
_	na Bat Habitat Characterization (Choose appropriate  Roost habitat: 1. Poor: No or few snags >= 5" DBH with  2. Moderate: Snags with sloughing bark or other roost feat  3. Optimal: Snags with sloughing bark or other roost feat  Water Resources: 1. Poor: bat drinking resources not pr  2. Moderate: Ephemeral or intermittent streams or ponde openings or canopy gaps allow bats easy access to the res  3. Optimal: Streams or ponds (including road ruts) prese available.	a sloughing ba atures present tures present esent at the si d areas prese ource. nt that appear	ark or other 5-15 inch I >15 inch DE te. nt but too c	usable roost fer DBH within 100 BH within 1000 luttered to allow inking resource	atures (cracks, 0 feet of forest feet of forested w many bats to throughout th	ed areas. d areas. o drink eas ne majority	sily or simu				s are
ndiar 	na Bat Habitat Characterization (Choose appropriate  Roost habitat: 1. Poor: No or few snags >= 5" DBH with  2. Moderate: Snags with sloughing bark or other roost feat  Water Resources: 1. Poor: bat drinking resources not pr  2. Moderate: Ephemeral or intermittent streams or ponde openings or canopy gaps allow bats easy access to the res  3. Optimal: Streams or ponds (including road ruts) prese available.  Forest Structure: (if hardwoods are absent or nearly abse  1. Poor: Habitat even aged and young. Trees smaller that  2. Moderate: some diversity in age of trees in the stand. may be present but rare.  3. Optimal: Mature forest. Diverse age classes of trees pr	a sloughing battures present tures present the side areas present ource. In that appear that or if standen 5 inch DBH. Trees 5 to 15 in the standen 5 inch DBH.	ark or other 5-15 inch I >15 inch DE te. nt but too c to offer dri is monocul Understor nches prese	usable roost fer DBH within 100 BH within 1000 luttered to allow inking resource ture, area autor by growth clutternt. Understory	atures (cracks, 0 feet of forest feet of forested w many bats to throughout the matically quali- ered and restri- clutter domin	ted areas.  d areas.  o drink eas  ne majority  ifies as a 1:  cts flying/  ant but no	sily or simu of the sun poor). foraging of ubiquitou	nmer. Fly	ways to r	esources an 15" [	ОВН
2	na Bat Habitat Characterization (Choose appropriate  Roost habitat: 1. Poor: No or few snags >= 5" DBH with  2. Moderate: Snags with sloughing bark or other roost feat  Water Resources: 1. Poor: bat drinking resources not pr  2. Moderate: Ephemeral or intermittent streams or ponde openings or canopy gaps allow bats easy access to the res  3. Optimal: Streams or ponds (including road ruts) prese available.  Forest Structure: (if hardwoods are absent or nearly abse 1. Poor: Habitat even aged and young. Trees smaller that 2. Moderate: some diversity in age of trees in the stand. The stand of the sta	a sloughing battures present iteres present at the side areas prese ource. In that appearent or if standen 5 inch DBH. Trees 5 to 15 iteres are predominant and wooded	ark or other 5-15 inch D 15 inch D 16 te. In the too c Too offer dr is monocul Understor Inches prese 15 inch D I I I I I I I I I I I I I I I I I I I	usable roost fer DBH within 100 BH within 1000 luttered to allow inking resource ture, area autor y growth clutte int. Understory BH frequent. Vited. Few matur Little connecti	atures (cracks, 0 feet of forest of forest of forest of forest ow many bats to throughout the matically qualicated and restriculter dominarying tree here trees present to adjacent of adjacent of forest of f	ed areas.  d areas.  d areas.  d drink eas  ne majority  ifies as a 1:  cts flying/  iant but no  ight and tr  t not conne	of the sun poor). foraging tubiquitoureefalls allowerted to oth	nmer. Fly us. Trees w for free	greater th quent sma	esources an 15" [	овн
2	Roost habitat: 1. Poor: No or few snags >= 5" DBH with 2. Moderate: Snags with sloughing bark or other roost feat Water Resources: 1. Poor: bat drinking resources not proceed 2. Moderate: Ephemeral or intermittent streams or ponder openings or canopy gaps allow bats easy access to the resources or canopy gaps allow bats easy access to the resources or proceed available.  Forest Structure: (if hardwoods are absent or nearly absolution for the stream of the structure. (If hardwoods are absent or nearly absoluted in the structure of the stream o	a sloughing battures present iteres present at the side areas prese ource. In that appearent or if standen 5 inch DBH. Trees 5 to 15 iteres are predominant and wooded	ark or other 5-15 inch D 15 inch D 16 te. In the too c Too offer dr is monocul Understor Inches prese 15 inch D I I I I I I I I I I I I I I I I I I I	usable roost fer DBH within 100 BH within 1000 luttered to allow inking resource ture, area autor y growth clutte int. Understory BH frequent. Vited. Few matur Little connecti	atures (cracks, 0 feet of forest of forest of forest of forest ow many bats to throughout the matically qualicated and restriculter dominarying tree here trees present to adjacent of adjacent of forest of f	ted areas.  d areas.  o drink eas  ne majority  ifies as a 1:  cts flying/ hant but no  ight and tr  t not conne  t forested a  n, fence rov	of the sun poor). foraging tubiquitoureefalls allowerted to oth	nmer. Fly us. Trees w for free	greater th quent sma	esources an 15" [	овн
2 2	Roost habitat: 1. Poor: No or few snags >= 5" DBH with 2. Moderate: Snags with sloughing bark or other roost feat Water Resources: 1. Poor: bat drinking resources not proceed to the resources or canopy gaps allow bats easy access to the resources or ponds openings or canopy gaps allow bats easy access to the resources. Streams or ponds (including road ruts) preservailable.  Forest Structure: (if hardwoods are absent or nearly absolutions. Habitat even aged and young. Trees smaller that 2. Moderate: some diversity in age of trees in the stand. The may be present but rare.  3. Optimal: Mature forest. Diverse age classes of trees progaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surrounding site 2. Marginal: Trees present in the form of small woodlots 3. Optimal: Area is largely forested. Wooded stands are	a sloughing battures present iteres present at the side areas prese ource. In that appearent or if standen 5 inch DBH. Trees 5 to 15 iteres are predominant and wooded	ark or other 5-15 inch D 15 inch D 16 te. In the too c Too offer dr is monocul Understor Inches prese 15 inch D I I I I I I I I I I I I I I I I I I I	usable roost fer DBH within 100 BH within 1000 luttered to allow inking resource ture, area autor y growth clutte int. Understory BH frequent. Vited. Few matur Little connecti	atures (cracks, 0 feet of forest of forest of forest of forest of forest of the many bats to throughout the matically qualified and restrictly clutter dominarying tree here trees present on to adjacent wooded stream	ted areas. If ar	of the sun poor). foraging of ubiquitor reefalls allo ected to oth areas. w, or other	nmer. Fly  as. Trees  w for free  aer areas c  wooded c	greater th quent sma	esources an 15" [	овн

0.4	30.500 N 3.5	Project	No./N	Jame_4	112		A ER SON	CREEK				Date_ 7	-25-14			1	_
ocation_	MOODER	off Ri	GE070:	AN KED	)		100	·		21//				-		Ke.	-2
ty_5616	ea	1.00	State_	014		Time Up	00.0	Tin	ne Down	0155	I IIA V X	701				6	, ,
on; UTN	1: N/E	1.150		_W/N_		2.855		Zone	_	Datum_	MPAVO	Observe	rs M/M TV	115	Co	PPER	HEAL
Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.	Moon Phas	e 60%		(	Vax Wan
10.00	EPFU	5	F	NR	17	45	D	4	0	-	-	4			Rise		Set
10:30	EPFU	A	M		17.5		C	2	0		~	J-K	Sun				2055
10.30	EPFU	T	F	MR	17	45	A	5	1	-	-	-	Moon				
		A	F	PL	20	47	A	2	0	-		-					
												-	Time	Temp (F)	Skv	Wind	No. Bats
														5.00		1000	
			-														0 3
																_	
		-				1											0
		-														1	0
																	0
					-				-		-		4	1	- (2		0
							6										
-																	
															Sky Code		
												1	0	Clear			
								-					1				
	£=====================================																
													1				
													6	Heavy rair	- thunde	er storm	
	o. 4 ocation ty State on; UTN  Time 10:00 10:30	Time Species  10:00 EPFU  10:30 EPFU  10:30 EPFU	Time Species Age  10:30 EPFU A  10:30 EPFU J  10:30 EPFU J	Time Species Age Sex  10:30 EPFU J F  10:30 EPFU J F  10:30 EPFU J F	Time Species Age Sex Repr.    O SO EPFU A M S   Project No./Name of Rocord No./Name of Rocation Rock No./Name of	Time Species Age Sex Repr. Mass (g)  10:30 EPFU A M S 175  10:30 EPFU J F NR 17  10:30 EPFU J F NR 17	Time Species Age Sex Repr. Mass (g) FA (mm) 10:30 EPFU A M S 17.5 46 10:30 EPFU J F MR 17. 45	Time Species Age Sex Repr. Mass (g) FA (mm) Net  10:30 EPFU A M S 17,5 46 C  10:30 EPFU J F NR 17 45 A	Time Species Age Sex Repr. Mass (g) FA (mm) Net (m)  10:30 EPFU A M S 17:55 46 C 2  10:30 EPFU J F NR 17 45 D 4  10:30 EPFU J F NR 17 45 A 5	Time Species Age Sex Repr. Mass (g) FA (mm) Net (m) WDI (10:30 EPFU A M S 17.5 46 C 2 0 10.30 EPFU J F NR 17 45 A 5 1	Time Species Age Sex Repr. Mass (g) FA (mm) Net (m) WDI G/H/B/T (10:30 EPFU J F NR 17 45 D 4 0 - 10:30 EPFU J F NR 17 45 A 5 1 -	Time Species Age Sex Repr. Mass (g) FA (mm) Net Height (m) WDI G/H/B/T Type 10:30 EPFU A M S 17,5 46 C 2 0 - 10:30 EPFU J F MR 17 45 A 5 1	Time Species Age Sex Repr.   Mass (g)   FA (mm)   Net   Height (m)   WDI   G/H/B/T   Type   T	Project No./Name   412	Project No./Name	Date   Project No./Name   1/2	Project No/Name   1/2

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

	Beaufort Wind Scale	
0	Calm: <1 mph	
1	Light air: 1-3 mph	
2	Light breeze: 4-6 mph	-3
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

p. 1

		Data Form	Project	No./N	Jame	412	1 6	MESES UN	CREEK				Date 7	1.30-15			-	
Site L	ocation_	WOODLOT	OFF 1	RELOTE	HAN R	>										-	(2)	
Coun	ty	SELECA 1: N/E 41		State_	OH		Time Up	8	Tin	ne Down	7:00						NO	7.
Lat/I	on; UTN	1: N/E 41	.155		$_{\rm W/N}$	-82	,8559		Zone	_	Datum_	NASS	Observe	rs MM,	THE		PPE	RHEAL
																1999	OHERHIES	Selection
#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.	Moon Phas	e\00 %		v	Vax / Wan
1	10:45	LABO	A	F	PL	14.5	40	E	1	0	1	-				Rise		Set
2	10:45	EPFU	A	W	5	17	47	B	a	0	-	_	-	Sun				8:50
3					732									Moon				
4				5 - 1	1 = +				, II									
5														Time	Temp (F)	Sky	Wind	No. Bats
7											100			9 00	78	6		
8						1								10.00	15	0	9	9
9											-			11.00	73	0	1	0
10											8			12.00	70	0	1	0
11	-													1:00	(40	D	1	0
12														2:00	64	0	1	0
13														2.00				
14																		
15				-										-	1	_		
16													-			Sky Code		
17														0	Clear			
18			-					( )					in i	1	Few Cloud	s		
19						L							1	2	Partly Clou	ıdy		
20														3	Cloudy or	overcast		
21														4	Fog or smo	ke		
22														5	Drizzle or	light rain		
23														6	Heavy rain	- thunde	r storm	
24													-					
25													1		Beau	fort Wind	l Scale	
26	g - 1			1 7										0	Calm: <1 n			
27														1	Light air: 1	-3 mph		
28													L_ 8.	2	Light breez			
29						100						1		3	Gentle bree			
30														-4	Moderate b	reeze: 11	-16 mph	
Acou	stic Surv	vey: Unit typ	e	_	Unit #		Date		Start tin			Stop time						
							Date		Start tin			Stop time		Please Re		. 6 7	Land I	
A7		C:					Date		Start tin	ne	_	Stop time		P.O. Box		ick, KY	, 40461.	
veat	herproo	ring		_			Coordin	ates_					-	(859) 925-	9012			
Com	ments:																	p. 2

LAVI - LEENG NIVE				roject N	10./ INA	uric		MERSON CRE				Date_ 7		
Lat/Lon; UTM: N/E_	41.155	W/N_82	8559		Z	one		Observers_	MTH -	TAB				
Datum: NAP83		SENECA	State Of	4_Qu	ad F	Tat	Rock							
Site Diagram:				He	ight L	ength	10.5			Domir	nant Veg	getation		
			1	Vet (	m)	(m)	Dates	1. RED DAK			4. ELM			
				A	0	6	7-25	2. willow			5,			
		OPEN J		B 6	2	6	7-25	3. CATELOR			6			
_	-C	FIELD PR		C 9	1	12	7-25							
1	1	le le	1 -	D 6	>	9	7.25				Set by H			
11		200		Е				Habitat	A	В	C	D	E	F
1/8		)	1 4	F				River						
		/	L					Stream	V	V				
		1						Pond						
11 was		1		ite Pho		phs		Corridor						
(4)	15.3	× / 1		Camera				Cave						
1330			I.	Photo L	.og:			Mine						
13/			l÷	_			-	Forest			/	/		
	V	OPEN	1		_	_		Gap				- 2		
	1	FIELD	1					Other						
allo A		7,000	-	_								1		
		aloughing book on athen						c) eatures (cracks,		etc)				
2. Moderate: openings or of 3. Optimal: S available. Forest Struct 1. Poor: Habi 2. Moderate: may be prese	Enags with s  Inces: 1. Poor Ephemeral Canopy gaps Streams or poor Eure: (if hard itat even age some diversent but rare.	sloughing bark or other re loughing bark or other re or: bat drinking resource or intermittent streams of allow bats easy access to onds (including road rute dwoods are absent or nead and young. Trees small sity in age of trees in the	roost feature cost feature es not prese or ponded a o the resour s) present the arly absent aller than 5 stand. Tree	res present at the reas presence. hat apport or if statinch DB es 5 to 1	ent 5-13 int >15 int >15 int >15 int >15 int >15 inche	5 inch I inch DE ut too c offer dri nonocul nderstor es prese	OBH within 100 OH within 1000 Outtered to allow Inking resource ture, area auto y growth clutt nt. Understor	eatures (cracks, 00 feet of forest ) feet of forested ow many bats to e throughout the omatically quali- gred and restrict y clutter domin	ed areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no	of the sur poor), foraging tubiquitor	nmer. Fly	yways to i	resource nan 15″ I	ОВН
Water Resou 2. Moderate: openings or of 3. Optimal: S available. Forest Struct 1. Poor: Habi 2. Moderate: may be prese 3. Optimal: M gaps that faci Land Cover: 2. Marginal: 3. Optimal: M	Enags with s  Inces: 1. Poor Ephemeral Canopy gaps Streams or poor Eure: (if hard itat even age some divers ent but rare. Mature fores ilitate bat for 1. Poor: Sq Trees prese Area is large	loughing bark or other re or: bat drinking resource or intermittent streams of allow bats easy access to onds (including road ruts dwoods are absent or near ed and young. Trees sma sity in age of trees in the st. Diverse age classes of raging. uare kilometer surround ent in the form of small welly forested. Wooded sta	roost feature es not prese or ponded a o the resour s) present the arly absent of aller than 5 stand. Tree trees prese ling site pre	res preses preses preses preses preses preses preses prece. hat app or if statinch DB es 5 to 1 ant. Tree edominad woods	ent 5-13 nt >15 it e site. esent bu ear to c nd is m 3H. Un 5 inche es > 15 antly un ed fence	5 inch I inch DE ut too c offer dri nonocul inderstor es prese inch DI n-forest er rows.	OBH within 100 OH within 1000 Outlered to allow Inking resource ture, area auto y growth clutt nt. Understor OH frequent. No ed. Few mature	eatures (cracks, 00 feet of forested of forested of forested ow many bats to eathroughout the matically qualifiered and restrictly clutter dominutes of the forested of the feet of the fe	ed areas. I areas. I drink eas The majority The majority The sas a 1: The cts flying/ The and the moternian connects The connects forested a	of the sur poor), foraging tubiquitor reefalls allo	us. Trees	greater the	resource nan 15″ I	ОВН
Water Resou 2. Moderate: openings or of 3. Optimal: S available. Forest Struct 1. Poor: Habi 2. Moderate: may be prese 3. Optimal: M gaps that faci Land Cover: 2. Marginal: 3. Optimal: M	Enags with s  Inces: 1. Poor Ephemeral Canopy gaps Streams or poor Eure: (if hard itat even age some divers ent but rare. Mature fores ilitate bat for 1. Poor: Sq Trees prese Area is large	loughing bark or other roor; bat drinking resource or intermittent streams of allow bats easy access to onds (including road ruted and young. Trees smasity in age of trees in the st. Diverse age classes of raging.  Quare kilometer surroundent in the form of small w	roost feature es not prese or ponded a o the resour s) present the arly absent of aller than 5 stand. Tree trees prese ling site pre	res preses preses preses preses preses preses preses prece. hat app or if statinch DB es 5 to 1 ant. Tree edominad woods	ent 5-13 nt >15 it e site. esent bu ear to c nd is m 3H. Un 5 inche es > 15 antly un ed fence	5 inch I inch DE ut too c offer dri nonocul inderstor es prese inch DI n-forest er rows.	OBH within 100 OH within 1000 Outlered to allow Inking resource ture, area auto y growth clutt nt. Understor OH frequent. No ed. Few mature	eatures (cracks, 00 feet of forested of forested of forested ow many bats to eathroughout the matically qualifiered and restrictly clutter dominutes of the forested of the feet of the fe	ed areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no ight and tr t not conne forested a n, fence rov	of the sur poor), foraging tubiquitor reefalls allo	us. Trees	greater the	resource nan 15″ I	ОВН
Water Resou 2. Moderate: openings or of 3. Optimal: S available. Forest Struct 1. Poor: Habi 2. Moderate: may be prese 3. Optimal: M gaps that faci Land Cover: 2. Marginal: 3. Optimal: M	Enags with s  Inces: 1. Poor Ephemeral Canopy gaps Streams or poor Eure: (if hard itat even age some divers ent but rare. Mature fores ilitate bat for 1. Poor: Sq Trees prese Area is large	loughing bark or other re or: bat drinking resource or intermittent streams of allow bats easy access to onds (including road ruts dwoods are absent or near ed and young. Trees sma sity in age of trees in the st. Diverse age classes of raging. uare kilometer surround ent in the form of small welly forested. Wooded sta	roost feature es not prese or ponded a o the resour s) present the arly absent of aller than 5 stand. Tree trees prese ling site pre	res preses preses preses preses preses preses preses prece. hat app or if statinch DB es 5 to 1 ant. Tree edominad woods	ent 5-13 nt >15 it e site. esent bu ear to c nd is m 3H. Un 5 inche es > 15 antly un ed fence	5 inch I inch DE ut too c offer dri nonocul nderstor es prese inch DI n-forest er rows.	OBH within 100 OH within 1000 Outlered to allow Inking resource ture, area auto y growth clutt nt. Understor OH frequent. No ed. Few mature	eatures (cracks, 00 feet of forested) feet of forested ow many bats to the throughout the matically qualities and restrictly clutter dominutered and restrictly clutter dominutered own tree here trees present the total adjacent wooded stream	ed areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no ight and tr t not conne forested a n, fence row n to:	of the sur poor), foraging of ubiquitor reefalls allo ected to other w, or other	us. Trees ow for free ner areas	greater the	resource nan 15″ I	ОВН

Site L Countat/L	o5 ocation_ ySei on; UTN	Woodst Neca 1: N/E 41.11	5719	State_	OH _W/N_	82.	Time Up	815 -5	o_Tin	t 8	Datum_	VA683	Observer	s EC, (	e R	Co	PPE F	HEAD
#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.	Moon Phas	e %		v	Vax / Wan
1	9:00	1 ABO ESC				-	1									Rise		Set
2	11:00	MYSE	5	F	NK	10	40	A	2	0	E	except Son	e banding	Sun				8.55
3							180.000							Moon				Direction of the last of the l
4								-	1									
5 6														Time	Temp (F)	Sky	Wind	No. Bats
7														9:00	83	-1	2	1
8														10 00	78	0	2	0
9										7.71		7.00		11:00	77	O	2	1
10										1 1				12:00		1	1	0
11										-		-		1:00	74	-i	2	0
12														2:00	74	0	2	0
13									1 1	-								
14										_ = =								
15						F.	100	<u> </u>			-							
16																Sky Code	- '	
17														0	Clear			
18		B												1	Few Cloud	s		
19						177	·						10	2	Partly Clou	ıdy		
20					-									3	Cloudy or	overcast		
21														4	Fog or smo	ke		
22														5	Drizzle or	light rain		
23			+ '											6	Heavy rain	- thunde	r storm	
24																		
25																fort Wind	Scale	
26													1	0	Calm: <1 n	1		
27			-											1	Light air: 1	-		
28 29					-									2	Light breez	1		
30														3	Gentle bree	_	-	
MY:	lis (LABC AU); Myo GO); Nycti	eviations: Coryno D); Lasiurus cinere tis grisescens (MY iceius humeralis (I ations: Male: M; F	eus (LAC GR); My NYHU);	CI); Lasit otis leib Perimy	urus semi pii (MYLE otis subfl	nolus (L ); Myoti avus (Pl	.ASE); Lasi is lucifugus ESU); Tada	onycteris (MYLU rida bras	noctivaga ); Myotis s iliensis (T	ans (LAN eptentrio ABR)	O); Myotis malis (MYS	austroripariu	S	Please Re P.O. Box 7 (859) 925-	73, Paint L			p. 1

Mist Netting Data Form Date 7-30-15 Project No./Name 412 / Emerson Greek Site No. Site Location World west of Wintermittent stream State OH Time Up 20:50 Time Down 0 | 59 County Senaca Lat/Lon; UTM: 0/E 41,167295 W/N 82,848025 Zone Datum NAD83 Observers ES, RR Freq. Height Band# Mass G/H/B/T FA (mm) Moon Phase Species Repr. Net WDI Wax / Wane Time Sex Age (g) (m) Type\_ LABO 2 0 1:30 D Rise Set 2 Sun 8:59 3 Moon 4 5 Time Temp (F) Sky Wind No. Bats 6 7 9:00 8 10:00 9 11:00 10 69 11 1:00 12 13 14 15 16 Sky Code 17 0 Clear 18 Few Clouds 1 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 Drizzle or light rain 5 23 6 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 27 Light air: 1-3 mph 28 Light breeze: 4-6 mph 29 Gentle breeze: 7-10 mph Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_ Unit# Date Start time Stop time Stop time Date Start time Please Return to: Stop time Date Start time P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing\_ Coordinates (859) 925-9012 Comments: p. 2

Mist Net Site Hab			ect No./N			Emerson	P6 0	0		Date		
Lat/Lon; UTM: N/E_ Datum: NAD 83	41.167295 W/N 87			Zone	Park	Observers_	12/18	10				_
Site Diagram:	County Senech	State OH	Quad_	Length	Roce	1		Domi	nant Ve	getation		
Site Diagrant.		Net	(m)	(m)	Dates	1. Lud	Made	Donn	4.	ctation		
		A	9	6	7	2. Rel	246		5			
		В	1	9	1	3. Bhan 4	~	nyen	6.			
		C	6	6								
1	Lacols	D	6	17				Net :	Set by H	abitat		
101	(Later)	Е				Habitat	A	В	C	D	E	F
18/		F				River			1			
trail A		P				Stream						
1						Pond						
	Th	Site	Photogr	aphs		Corridor	X	×	X			
		The second secon	iera:			Cave		-				
( D		Pho	to Log:_			Mine	+		7.1.1			
	Juy Sear					Forest				x		
	10/	-				Gap						
1		_				Other			11 0 7			
2. Moderate: openings or c 3. Optimal: S available. Forest Struct	inags with sloughing bark or other rces: 1. Poor: bat drinking resour Ephemeral or intermittent streams anopy gaps allow bats easy access treams or ponds (including road rure: (if hardwoods are absent or r	rces not present a s or ponded areas to the resource. uts) present that hearly absent or if	t the site present appear to stand is	but too cl	uttered to allo	ow many bats to	o drink eas	of the sur				are
2. Moderate: may be prese 3. Optimal: N	tat even aged and young. Trees si some diversity in age of trees in th nt but rare. Mature forest. Diverse age classes litate bat foraging.	ne stand. Trees 5	to 15 inc	hes prese	y growth clutt nt. Understory	ered and restri y clutter domin	cts flying/ ant but no	foraging et ubiquito				
2. Moderate: may be prese 3. Optimal: M gaps that faci Land Cover: 2. Marginal: 3. Optimal: A	some diversity in age of trees in the tout rare.  Mature forest. Diverse age classes litate bat foraging.  1. Poor: Square kilometer surrous Trees present in the form of small Area is largely forested. Wooded so	ne stand. Trees 5 of trees present. Inding site predor woodlots and w	to 15 inc Trees > 1 ninantly ooded fe	hes prese 5 inch DE un-forest nce rows.	y growth clutt nt. Understor BH frequent. \ ed. Few matu Little connec	ered and restri y clutter domin /arying tree he re trees presen- tion to adjacent wooded stream	cts flying/ nant but no ight and tr t not conne t forested a n, fence rou	foraging of ubiquito eefalls allo ected to other	ow for fre	quent sma		
2. Moderate: may be prese 3. Optimal: M gaps that faci Land Cover: 2. Marginal: 3. Optimal: A Total Habitat S	some diversity in age of trees in the that rare.  Mature forest. Diverse age classes litate bat foraging.  1. Poor: Square kilometer surrous Trees present in the form of small	ne stand. Trees 5 of trees present. Inding site predor woodlots and w	to 15 inc Trees > 1 ninantly ooded fe	hes prese 5 inch DE un-forest nce rows.	y growth clutt nt. Understor BH frequent. \ ed. Few matu Little connec	ered and restri y clutter domin /arying tree he re trees presen- tion to adjacent wooded stream Please retur	cts flying/ lant but no ight and tr t not conne t forested a n, fence rou n to:	foraging the ubiquito eefalls allo ected to other areas. w, or other	ow for fre her areas wooded	quent sma		
2. Moderate: may be prese 3. Optimal: M gaps that faci Land Cover: 2. Marginal: 3. Optimal: A	some diversity in age of trees in the tout rare.  Mature forest. Diverse age classes litate bat foraging.  1. Poor: Square kilometer surrous Trees present in the form of small Area is largely forested. Wooded so	ne stand. Trees 5 of trees present. Inding site predor woodlots and w	to 15 inc Trees > 1 ninantly ooded fe	hes prese 5 inch DE un-forest nce rows.	y growth clutt nt. Understor BH frequent. \ ed. Few matu Little connec	ered and restri y clutter domin /arying tree he re trees presen- tion to adjacent wooded stream	cts flying/ lant but no ight and tr t not conne t forested a n, fence rou n to:	foraging the ubiquito eefalls allo ected to other areas. w, or other	ow for fre her areas wooded	quent sma		

Lat/Lo	n; UTM: NE 41,167295 W/N 87	x4802		Name 4		Observers_	ES, K	K				
	:NAD83 County Seneca	State OH	Quad	Flat	Rock		- 3 1					
Site Di	agram: S+rean			t Length				Domin	nant Veg	etation		
~	The state of the s	Net		(m)	Dates	1. Rod	Maple	2	4			
	¬ //	A	9	6		2. Red		1-7	5		_	_
	71 11	В	6	12		3. Shagt	xxx H	receip	6			_
	( desor	C	6	6				NT-1 C		-1.16-1		
	3/	D	6	9		17-1-16-4	A	Net 3	Set by H	D	E	_
-	C truit	E	-			Habitat	A	D	C	D	E	+
		F		1		River Stream					-	-
	woods	_				Pond			-			
		Site	Photog	raphs		Corridor	16	x	+	+		-
-			nera:	rapio		Cave	1	-	1			
	25.72	1.00	to Log:			Mine				== 10	-	
1	suybean	7200	0			Forest	100 1					
1		100				Gap						
1						Other						
1												
1		1						- 1				
	a Bat Habitat Characterization (Choose appr											
Indiar 3	Roost habitat: 1. Poor: No or few snags >= 5" I	BH with sloug	hing bar	rk or other	usable roost fe	eatures (cracks,		etc)				
	Roost habitat: 1. Poor: No or few snags >= 5" I 2. Moderate: Snags with sloughing bark or other	BH with sloug roost features	hing bai present	rk or other 5-15 inch E	usable roost fe DBH within 10	eatures (cracks, 00 feet of forest	ted areas.	etc)				
	Roost habitat: 1. Poor: No or few snags >= 5" I 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other	BH with sloug roost features oost features p	hing bar present resent >	rk or other 5-15 inch E 15 inch DB	usable roost fe DBH within 10	eatures (cracks, 00 feet of forest	ted areas.	etc)				
	Roost habitat: 1. Poor: No or few snags >= 5" I  2. Moderate: Snags with sloughing bark or other  3. Optimal: Snags with sloughing bark or other  Water Resources: 1. Poor: bat drinking resource	BH with sloug roost features roost features p es not present a	hing bar present resent > at the sit	rk or other 5-15 inch E 15 inch DB e.	usable roost fe BH within 10 BH within 1000	eatures (cracks, 00 feet of forest ) feet of foreste	ted areas. d areas.		ultaneous	ly. No co	arridare	
	Roost habitat: 1. Poor: No or few snags >= 5" I 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams	DBH with sloug roost features roost features p es not present a or ponded area	hing bar present resent > at the sit s presen	rk or other 5-15 inch E 15 inch DB e.	usable roost fe BH within 10 BH within 1000	eatures (cracks, 00 feet of forest ) feet of foreste	ted areas. d areas.		ultaneous	ly. No cc	orridors,	
	Roost habitat: 1. Poor: No or few snags >= 5" I  2. Moderate: Snags with sloughing bark or other  3. Optimal: Snags with sloughing bark or other  Water Resources: 1. Poor: bat drinking resource	DBH with sloug roost features roost features p es not present a or ponded area to the resource.	hing bar present resent > at the sit s presen	rk or other 5-15 inch I 15 inch DB e. it but too cl	usable roost fe DBH within 100 H within 1000 uttered to allo	eatures (cracks, 00 feet of forest deet of forester w many bats to	ted areas. d areas. o drink eas	sily or simu				
	Roost habitat: 1. Poor: No or few snags >= 5" I.  2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available.	DBH with sloug roost features roost features p es not present a or ponded area o the resource. ts) present that	hing bar present resent > at the sit s present appear	rk or other 5-15 inch E 15 inch DB e. It but too cl	usable roost fe DBH within 100 H within 1000 uttered to allo nking resource	eatures (cracks, 00 feet of forest ) feet of foreste ow many bats to e throughout th	ted areas. d areas. o drink eas ne majority	sily or simu				
	Roost habitat: 1. Poor: No or few snags >= 5" I.  2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no	DBH with sloug roost features roost features p es not present a or ponded area o the resource. ts) present that arly absent or i	hing bai present resent > at the sit s present appear f stand i	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri	usable roost fe DBH within 100 H within 1000 uttered to allo nking resource ture, area auto	eatures (cracks, 00 feet of forest ) feet of forester ow many bats to e throughout the omatically qual	ted areas. d areas. o drink eas ne majority ifies as a 1	sily or simuy of the sur				
	Roost habitat: 1. Poor: No or few snags >= 5" I.  2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no 1. Poor: Habitat even aged and young. Trees sm	DBH with sloug roost features roost features p es not present a or ponded area o the resource. ts) present that arly absent or i	hing bai present resent > it the sit s present appear f stand it h DBH.	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri is monocul Understor	usable roost fe DBH within 100 H within 1000 uttered to allo nking resource ture, area auto y growth clutt	eatures (cracks, 00 feet of forest of feet of forested ow many bats to the throughout the omatically qual- ered and restri	ted areas. d areas. o drink eas ne majority ifies as a 1 cts flying/	sily or simuy of the sur	nmer. Fly	ways to	resource	s ar
	Roost habitat: 1. Poor: No or few snags >= 5" I.  2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the	DBH with sloug roost features roost features p es not present a or ponded area o the resource. ts) present that arly absent or i	hing bai present resent > it the sit s present appear f stand it h DBH.	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri is monocul Understor	usable roost fe DBH within 100 H within 1000 uttered to allo nking resource ture, area auto y growth clutt	eatures (cracks, 00 feet of forest of feet of forested ow many bats to the throughout the omatically qual- ered and restri	ted areas. d areas. o drink eas ne majority ifies as a 1 cts flying/	sily or simuy of the sur	nmer. Fly	ways to	resource	s ar
	Roost habitat: 1. Poor: No or few snags >= 5" II 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the may be present but rare.	DBH with sloug roost features roost features p es not present a or ponded area to the resource. ts) present that arly absent or i aller than 5 inc stand. Trees 5	hing bar present resent > at the sit s present appear f stand i h DBH.	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri is monocul Understor ches prese	usable roost for DBH within 1000 luttered to allow thing resource ture, area auto y growth cluttert. Understory	eatures (cracks, 00 feet of forest deet of forester w many bats to e throughout the ematically qual- ered and restri y clutter domin	ted areas. d areas. o drink each ne majority ifies as a 1 cts flying/ nant but no	sily or simuy of the sur poor). foraging of ubiquitor	nmer. Fly	vways to	resource han 15″ I	es are
	Roost habitat: 1. Poor: No or few snags >= 5" II 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes of	DBH with sloug roost features roost features p es not present a or ponded area to the resource. ts) present that arly absent or i aller than 5 inc stand. Trees 5	hing bar present resent > at the sit s present appear f stand i h DBH.	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri is monocul Understor ches prese	usable roost for DBH within 1000 luttered to allow thing resource ture, area auto y growth cluttert. Understory	eatures (cracks, 00 feet of forest deet of forester w many bats to e throughout the ematically qual- ered and restri y clutter domin	ted areas. d areas. o drink each ne majority ifies as a 1 cts flying/ nant but no	sily or simuy of the sur poor). foraging of ubiquitor	nmer. Fly	vways to	resource han 15″ I	es are
	Roost habitat: 1. Poor: No or few snags >= 5" I  2. Moderate: Snags with sloughing bark or other  3. Optimal: Snags with sloughing bark or other  Water Resources: 1. Poor: bat drinking resource  2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access  3. Optimal: Streams or ponds (including road ru available.  Forest Structure: (if hardwoods are absent or not 1. Poor: Habitat even aged and young. Trees sm  2. Moderate: some diversity in age of trees in the may be present but rare.  3. Optimal: Mature forest. Diverse age classes of gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surround.	PBH with sloug roost features post features post features per not present a proposed area to the resource. Its present that arly absent or it aller than 5 inconstand, Trees 5 features present.	hing bar present resent > at the sit s presen appear f stand i h DBH. to 15 in Trees >	rk or other 5-15 inch E 15 inch DB e. It but too cl to offer dri is monocul Understor ches preser 15 inch DE	usable roost for DBH within 1000 of the Within 1000 of the Within 1000 of the Within to all of the Within the	eatures (cracks, 00 feet of forested of feet of forested ow many bats to eathroughout the matically qualiered and restrictly clutter dominary arying tree here trees presen	ted areas. d areas. o drink eas ne majority ifies as a 1 cts flying/ nant but no	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo	nmer. Fly us. Trees	ways to greater t	resource han 15″ I	es are
	Roost habitat: 1. Poor: No or few snags >= 5" I 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available.  Forest Structure: (if hardwoods are absent or not 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes of gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surround 2. Marginal: Trees present in the form of small of the same street.	BH with sloug roost features post features post features post features post features post features produced area to the resource. Its present that arly absent or it aller than 5 incostand. Trees for trees present.  I trees present.  I trees present.  I trees present.	hing bar present resent > at the sit s present appear f stand i h DBH. to 15 in Trees > minantly rooded f	rk or other 5-15 inch D 15 inch DB e. It but too cl to offer dri is monocul Understor iches prese 15 inch DB y un-forestence rows.	usable roost for DBH within 100 DBH within 1000 DBH within 1000 DBH within 1000 DBH resource area autory growth cluttent. Understory BH frequent. Ved. Few matured. Few matured. Few matured. Little connections	eatures (cracks, 00 feet of foresto feet of foresto feet of foresto w many bats to the throughout the matically qualiered and restrictly clutter domin farying tree he are trees presention to adjacen	ted areas. d areas. o drink eas ne majority ifies as a 1 cts flying/ nant but no ight and to t not conne	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo ected to other	us. Trees	greater t quent sm of trees.	resource han 15″ I all openi	es are
	Roost habitat: 1. Poor: No or few snags >= 5" I  2. Moderate: Snags with sloughing bark or other  3. Optimal: Snags with sloughing bark or other  Water Resources: 1. Poor: bat drinking resource  2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access  3. Optimal: Streams or ponds (including road ru available.  Forest Structure: (if hardwoods are absent or not 1. Poor: Habitat even aged and young. Trees sm  2. Moderate: some diversity in age of trees in the may be present but rare.  3. Optimal: Mature forest. Diverse age classes of gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surround.	PBH with sloug roost features post features post features per not present a per ponded area to the resource. Its) present that arly absent or it aller than 5 incostand. Trees 5 features present.	hing bar present resent > at the sit s present appear f stand i h DBH. to 15 in Trees > minantly rooded f	rk or other 5-15 inch D 15 inch DB e. It but too cl to offer dri is monocul Understor iches prese 15 inch DB y un-forestence rows.	usable roost for DBH within 100 DBH within 1000 DBH within 1000 DBH within 1000 DBH resource area autory growth cluttent. Understory BH frequent. Ved. Few matured. Few matured. Few matured. Little connections	eatures (cracks, 00 feet of foresto feet of foresto feet of foresto w many bats to the throughout the matically qualiered and restrictly clutter domin farying tree he are trees presention to adjacen	ted areas. d areas. o drink eas ne majority ifies as a 1 cts flying/ nant but no ight and to t not conne	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo ected to other	us. Trees	greater t quent sm of trees.	resource han 15″ I all openi	es ar
	Roost habitat: 1. Poor: No or few snags >= 5" II 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes of gaps that facilitate bat foraging. Land Cover: 1. Poor: Square kilometer surroun 2. Marginal: Trees present in the form of small of 3. Optimal: Area is largely forested. Wooded st	PBH with sloug roost features post features post features per not present a per ponded area to the resource. Its) present that arly absent or it aller than 5 incostand. Trees 5 features present.	hing bar present resent > at the sit s present appear f stand i h DBH. to 15 in Trees > minantly rooded f	rk or other 5-15 inch D 15 inch DB e. It but too cl to offer dri is monocul Understor iches prese 15 inch DB y un-forestence rows.	usable roost for DBH within 100 DBH within 1000 DBH within 1000 DBH within 1000 DBH resource area autory growth cluttent. Understory BH frequent. Ved. Few matured. Few matured. Few matured. Little connections	eatures (cracks, 00 feet of foresto feet of foresto feet of foresto w many bats to the throughout the matically qualiered and restrictly clutter domin farying tree he are trees presention to adjacen	ted areas. d areas. o drink eas ne majority ifies as a 1 cts flying/ nant but no ight and to t not conne	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo ected to other	us. Trees	greater t quent sm of trees.	resource han 15″ I all openi	es are
	Roost habitat: 1. Poor: No or few snags >= 5" II 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available.  Forest Structure: (if hardwoods are absent or not 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes of gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surround 2. Marginal: Trees present in the form of small of 3. Optimal: Area is largely forested. Wooded st  Total Habitat Score (Should be between 4 & 12)	PBH with sloug roost features post features post features per not present a present and the resource. It is present that arly absent or it aller than 5 incomparts and a trees present. It ing site predovoodlots and wands are connected.	hing bar present resent > at the sit s present appear f stand i h DBH. to 15 in Trees > minantly coded f cted to c	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri is monocul Understor ches preser 15 inch DB y un-foreste ence rows.	usable roost for DBH within 100 DBH within 1000 DBH within 1000 DBH within 1000 DBH resource area autory growth cluttent. Understory BH frequent. Ved. Few matured. Few matured. Few matured. Little connections	eatures (cracks, 00 feet of foresto feet of foresto feet of foresto w many bats to the throughout the matically qualiered and restrictly clutter domin farying tree he are trees presention to adjacen	ted areas. d areas. o drink eas he majority ifies as a 1 cts flying/ hant but no ight and to t not conne t forested and, fence roo	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo ected to other	us. Trees	greater t quent sm of trees.	resource han 15″ I all openi	es are
3 1 3 1 9	Roost habitat: 1. Poor: No or few snags >= 5" II 2. Moderate: Snags with sloughing bark or other 3. Optimal: Snags with sloughing bark or other Water Resources: 1. Poor: bat drinking resource 2. Moderate: Ephemeral or intermittent streams openings or canopy gaps allow bats easy access 3. Optimal: Streams or ponds (including road ru available. Forest Structure: (if hardwoods are absent or no 1. Poor: Habitat even aged and young. Trees sm 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes of gaps that facilitate bat foraging. Land Cover: 1. Poor: Square kilometer surroun 2. Marginal: Trees present in the form of small of 3. Optimal: Area is largely forested. Wooded st	PBH with sloug roost features post features post features per not present a present and the resource. It is present that arly absent or it aller than 5 incomparts and a trees present. It ing site predovoodlots and wands are connected.	hing bar present resent > at the sit s present appear f stand i h DBH. to 15 in Trees > minantly coded f cted to c	rk or other 5-15 inch E 15 inch DB e. at but too cl to offer dri is monocul Understor ches preser 15 inch DB y un-foreste ence rows.	usable roost for DBH within 100 DBH within 1000 DBH within 1000 DBH within 1000 DBH resource area autory growth cluttent. Understory BH frequent. Ved. Few matured. Few matured. Few matured. Little connections	eatures (cracks, 00 feet of foresto) feet of foresto of feet of foresto ow many bats to e throughout the omatically qualiered and restrictly clutter dominarying tree here trees presention to adjacen wooded stream	ted areas. d areas. o drink eas he majority ifies as a 1 cts flying/ hant but no ight and to t not connit forested a h, fence roo	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo ected to other areas. w, or other	us. Trees ow for free mer areas wooded	greater t quent sm of trees.	resource han 15″ I all openi	es are

, 10	Time	Species	Age	Sex	Repr.	Mass	FA (mm)		Height	WDI	G/H/B/T	Band#	Freq.	Reselver Moon Phase		4		Vax / Wane
1			100		97/4	(g)	4.00		(m)	WAY.	3/-1/-/	Type				n		
_	9.10	EPFU	A	M	5	11-	40	B	5	0	-	-		Committee		Rise	20	Set
	11:30	LABO	1	F	NR	11,	41	Ć	2	0	_		_	Sun		068		8'51
	:00	LABO	7	F	NR	11	40	-	-1	0	-	_	-	Moon		191	0	0431
	_														1	_		
	-		-	_								-		Time	Temp (F)	Sky	Wind	No. Bats
	-					-	-	_				_		4:00	80	-	1	1
1	_											-	-	9:00		1		1
	-							_						10:00	35	2	2	7
0	-		-		-	_								12:00	78	-	2	0
1	_		1	-							-			1:00	76	1	2	8
2	-						-							7:00	74	0	2	ŏ
3			1									_		1.00	1.7	0	-	0
4							-	_	-	-		_		-				-
5	-															_		
6			-								-			1		Sky Code		
7									-			-		0	Clear			
8	_				100									1	Few Cloud	e		
9														2	Partly Clou			
0														3	Cloudy or			
1															Fog or smo			
2											-				Drizzle or			_
3															Heavy rain			
4																		
5				-											Beau	fort Wind	i Scale	
6					-									0	Calm: <1 n	nph		
7															Light air: 1			
8										7 11					Light breez		h	
9	-		-		19 10 1	123						,			Gentle bree			
0														0	Moderate b		•	
30 Specie	is (LABC U); Myot	viations: Coryno )); Lasiurus cine is grisescens (M	reus (LAG YGR); M	CI); Lasi yotis leil	urus semi bii (MYLE	inolus (L E); Myoti	.ASE); Lasi is lucifugus	onycter (MYLL	is noctivage	ans (LAN eptentric	O); Myotis	austroriparii	us	0	Moderate b	oreeze: 11	-16 mph	

.

Mist Netting Data Form Site No. 6 Project No./Name 411 / Emerson Green Date 7/31/15
Site Location Woodlot South of Child OH Time Up 8/36 Time Down 155 ON 72 74962 Zone Datum NAD83 Observers Eric Smith County Senega State\_OH\_ Lat/Lon; UTM: NYE 41, 18653 Freq. Band# Mass Height Species FA (mm) Net WDI G/H/B/T Moon Phase Wax / Wane Time Sex Repr. (g) (m) Type\_ 9:05 EFFU 44 Rise Set 10:00 LA BO M Sun 8:49 3 12:30 1 ABO 40 R Moon 4 5 Temp (F) Time Wind No. Bats 6 7 9.00 8 Tin 2 0 10:00 9 11:00 71 0 2 10 12:00 2 11 1:00 1 0 71 12 7:00 0 2 13 14 15 16 Sky Code 17 Clear 0 18 1 Few Clouds 19 Partly Cloudy 2 20 3 Cloudy or overcast 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 0 27 Light air: 1-3 mph 1 28 Light breeze: 4-6 mph 2 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type Unit# Date Stop time\_ Start time Date Start time Stop time\_ Please Return to: Date Start time Stop time\_ P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing\_ Coordinates (859) 925-9012 Comments: p. 2

State OH   Quad   Flat   Rock     State Diagram:   Height   Length   Dominant Vegetation     Net (m) (m)   Dates   1. Red   Maple   4.     A 6 6 7 1/29 7/31   3. Elm   6.     C 6 6 7/29 7/31   Net Set by Habitat   Net Set by Habitat	Lat/Lon; UTM: (NYE 41, 18653	WIN 82 84962	roject No./	Zone -		Observers	enc	Smit	h		229-1	
Net   Comparation   Net	Datum: NADS3 County Sense		Ouad		Rock							
Net (m) (m) Dates  A 6 6 7 1/29 1/51  B 9 9 7/29 1/51  C 6 6 7/29 1/51  B 9 9 7/29 1/29 1/51  B 9 9 7/29 1/29 1/29 1/29 1/29 1/29 1/29 1/29 1	Site Diagram:	State Of				T		Domi	nant Ve	getation		
A   6   C	2.11. 2.118. 1111	N		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A. A	1. Red M	wole.			0		
B 9 9 7 7/24 7/35 3. Elec.  B 9 9 7 7/24 7/35 Net Set by Habitat  B 1 River   Stream  River   Stream   Pond   Pond									5.			
Roost habitat* Characterization (Choose appropriate score for each habitat characteristic)  Roost habitat* 1. Poor: No or few snags >= 5° DBH with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other  Roost habitat* 1. Poor: No or few snags >= 5° DBH with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other  National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other  National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other  National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other  National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  Other National: Snags with sloughing bark or other roost features present 5-15 inch DBH within 1000 feet of forested areas.  National: Snags with sloughing bark or other roost features 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.  Opinal: Streams or ponds (including rood 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 domi		-1		_					6.			
ndiana Bat Habitat Characterization (Choose appropriate score for each habitat characteristic)    Rost Habitat 1. Poor. No or few snags >= 5′ DBH with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.   Noderate: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.   Noderate: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.   Noderate: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.   Noderate: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.   Noderate: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.   Noderate: Spelmeral 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.   Noderate: Spelmeral 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.   Noderate: Spelmeral 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.   Noderate: Spelmeral or intermittent streams or ponded areas present but too cluttered and restricts flying/foraging     Noderate: 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 many be present but are.   Noderate: 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 many be present but are.   Noderate: Spelmeral trees present. Trees > 15 in		(	0 6		77							
Beautiful Control of Stream   Babitat   A   B   C   D   E   E		I	0 6	6				Net :	Set by F	Iabitat		
Andiana 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)  Noderate: Snags with sloughing bark or other roost features present >15 inch DBH within 1000 feet of forested areas.  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.  Noderate: 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 bate seasy access to the resource.  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  Noderate: 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.  Optimal: Atree is largely forested. Wooded stands are connected to other wooded stream, fence row, or other wooded corridor.  Total Habitat Score (Should be between 4 & 12)  Please return to:  P.O. Box 73, Paint Lick, KY. 40461	11					Habitat	A	В	C	D	E	F
Site Photographs Carmera: Photo Log: Photo Log: Whine Forest Gap Other  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 5-15 inch DBH within 1000 feet of forested areas. 4. 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. 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 ubiquitious. 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 are 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)**  Please return to:  P.O. Box 73, Paint Lick, KY. 40461**			F			River			-	-		
Site Photographs   Camera:   Cave   Mine   Photo Log:   Photo Log:   Photo Log:   Mine   Forest   Cap   Other		- 1/				Stream				= = 1		
Camera: Photo Log:  amera: Capera: Cother Indicate some diversity so other roost features 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. Canopranals or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summers. Flyways to resources are available. Canopranals or ponds (including road ruts) present that appear to offer drinking resource throughout the majority of the summers. Flyways to resources are available. Canopranals or ponds (including road ruts) present at the site. Canopranals or ponds (incl										1.		
Photo Log:    Mine   Forest   Gap   Other	18		-	raphs			X	X	X	X	9 0	
Roost 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 5-15 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.   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 trare.   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 are 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 stream, fence row, or other wooded corridor.   Your pout of the summer of the summer	17							. 4		= 1	PERC	
Andiana 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 5-15 inch DBH within 1000 feet of forested areas.  4. 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.  Porest 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 ubiquitious. 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 are 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 wooddots and wooded fence rows. Little connection to adjacent forested areas.  3. Optimal: Area is largely forested. Wooded stands are connected to other wooded straam, fence row, or other wooded corridor.	1 //	P	noto Log:							11		
Other  Ot	111	/4-		_		Decree Control						
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 >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 are 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 stream, fence row, or other wooded corridor.  Please return to:  P.O. Box 73, Paint Lick, KY. 40461	1 //	4-					14					
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 are gaps that facilitate bat foraging.  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 stream, fence row, or other wooded corridor.  Somewhat is a 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 stream, fence row, or other wooded corridor.		_				Other	-					
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 are 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 stream, fence row, or other wooded corridor.  8. Total Habitat Score (Should be between 4 & 12)  Please return to:  P.O. Box 73, Paint Lick, KY. 40461	A											
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)  Please return to: P.O. Box 73, Paint Lick, KY. 40461	2. Moderate: Snags with sloughing 3. Optimal: Snags with sloughing b Water Resources: 1. Poor: bat driv 2. Moderate: Ephemeral or intermit openings or canopy gaps allow bate 3. Optimal: Streams or ponds (inclusivation) available. Forest Structure: (if hardwoods and 1. Poor: Habitat even aged and you 2. Moderate: some diversity in age may be present but rare. 3. Optimal: Mature forest. Diverse gaps that facilitate bat foraging. Land Cover: 1. Poor: Square kilom	bark or other roost features oark or other roost features onking resources not present tent streams or ponded are seasy access to the resource of the resource	es present : present > pre	5-15 inch D 15 inch D 2. It but too of so offer dr s monocu Understo ches prese 15 inch D	DBH within 1000 fBH within 1000 fcluttered to allow rinking resource flure, area automy growth clutterent. Understory fBH frequent. Valeted. Few mature	deet of forested we many bats to throughout the natically quali- red and restri- clutter dominarying tree he	ted areas. I areas. I drink eas ne majorit ifies as a 1 cts flying/ iant but no	sily or simuly of the sur poor). foraging of ubiquito reefalls allo	us. Trees	yways to s greater t	resources han 15" [	рвн
P.O. Box 73, Paint Lick, KY. 40461	2. Marginal: Trees present in the fo	<ol> <li>Wooded stands are conf</li> </ol>	nected to o	ther wood	dad standards on	ooded stream	, fence ro	w, or other	wooded	corridor.		
COPPERHEA	3. Optimal: Area is largely forested				ded stands via w		n to			4	3	
	3. Optimal: Area is largely forested  Total Habitat Score (Should be betw				ded stands via w	Please retur		tal day		-	හ	

Site N	0.	ata Form	Project	No./N	lame	412	1 6	MERSON	1 CREE	15			Date_	7/26/1	5	-1		
ite L	ocation_	STREAM O	FF of	136													12	7
Count	y Ser	1: N/E 41.1	24 24	State_	OH		Time Up	8::	55 Tir	ne Down	1 2 00	PV = C/2		44-44	000		W	] •
at/L	on; UTM	1: N/E 41.1	1019	-	_W/N_	-82.	84501	_	Zone		Datum_I	NHD83	Observe	rs MIM	LLE	- 00	PPE	HEAD
			1	_								Band#	Freq.	16	-	I NYS	* O. D. A. S. W. L. A. S.	10.8 1 (s) 0.5
#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Type		Moon Pha	se 50 %		C	Vax) / Wan
1	9:10	LABO	A.	F	PL	14	41	C	3	0	-	-	-			Rise		Set
2	9:45	FAFU	IA	F	PL	17	47	D	2	0	-		_	Sun		06	21	9:00
3	10.30	EPFU	A	F	84	20	49	B	2	0	-	_	-	Moon		163		0246
4	11:30	EPFU	IA	F	PL	20	50	C	9	90	_		_			1447-		LOC T
5	11:45	FPFU	IA	F	PL	21	47	B		0	-	1	-	Time	Temp (F)	Sky	Wind	No. Bats
6	1.40	EPFU	A.	F	PL	17	48	C	8	0	-	)	_	1 - 10 - 11 -	F 200 C		777	Tto. Data
7				-					1			10.7		9:00	73	3	1	2
8										-	-			10:00	71	3	1	- 1
9											-			11:00	70	3	1	2
10	-			-				-3						12:00	69	2		0
11	-								1		-			1:00	66	Z		1
12														2:00	60	2	1 1	0
13																- 1		
14						11 11												
15									100									
16				3 (												Sky Code	2	
17														0	Clear			
18								/= 3						1	Few Cloud			
19														2	Partly Clo			
20			_											3	Cloudy or			
21			_											4	Fog or sme			
22														5	Drizzle or			
23								1=_1	1					6	Heavy rain	ı - thunde	er storm	
24														-				
25														4	1.5.97	fort Win	d Scale	
26								1 - 4						0	Calm: <1 r	nph		

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

Please Return to:

2

3

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

Light air: 1-3 mph

Light breeze: 4-6 mph

Gentle breeze: 7-10 mph Moderate breeze: 11-16 mph

(859) 925-9012

Mist Netting Data Form Project No./Name 412 / Embrson CRIER Date 7-29-15 Site No. 3 Site Location STREAM OF 131. County SENECE State OHO Time Up 8.50 Time Down 2:00 Lat/Lon; UTM: N/E 4/.17072 W/N - 82.89307 Zone Datum NIAD83 Observers MTM, TAB Freq. Height Band# Mass Time Species Repr. FA (mm) Net WDI G/H/B/T Moon Phase Wax / Wane Sex Age (g) (m) Type\_\_\_ 1 10:50 FPFU M 20 46 Rise 2 0622 Sun 2052 1916 3 Moon 0431 4 5 Wind Temp (F) Time Sky No. Bats 6 7 9 00 2 0 8 a 79 10:00 9 11:00 0 10 12:00 2 0 0 11 1.00 12 13 14 15 16 Sky Code 17 Clear 18 Few Clouds 19 2 Partly Cloudy 20 Cloudy or overcast 21 4 Fog or smoke 22 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 27 Light air: 1-3 mph 28 Light breeze: 4-6 mph 29 3 Gentle breeze: 7-10 mph Moderate breeze: 11-16 mph Acoustic Survey: Unit type Unit# Stop time\_ Date Start time Date Start time Stop time\_ Please Return to: Date Start time\_\_\_\_\_ Stop time P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing\_\_\_\_ Coordinates (859) 925-9012 Comments: p. 2

Lat/Las	Vet Site Habitat Sheet	Site No. 8	2.89307	oject No./	Zone			Observers_		RRR		Date		
Datas	NAD83 County Sen		State 0	Quad	Fices	ido		Observers_		131.13				
Site Dia	1 at		State_O1	Heigh	Length					Domir	nant Veg	etation		
	Say be	ons/	N	et (m)	(m)	Dat	tes	1. RED OF	VK.		4. BEES			
1	1		- 4	-	6	7.26		2. RED N			5. ELM			
V	16 50		model	3 6	6	7-26	7-29	3. Cotton	wood		6			
6	10m				9	7-26	7-29							
	18	10		6	6	7-26	7-29	*****			Set by H			P
	1			4	4m		7-29	Habitat	A	В	С	D	Е	r
	•	-	V					River Stream	-	-	17	-	-	
				-			_	Pond	-	V	- V			
C	sybeans		Si	te Photog	raphs			Corridor						
2	31.00			mera:				Cave	1.			1		
		1	P	oto Log:				Mine						
		To stand	(m)				_	Forest				/		
		D	-				-	Gap						
			1-					Other						100
	a Bat Habitat Characterization Roost habitat: 1. Poor: No or fe							tures (cracks,	crevices,	etc)				
Indian. 3 3	Roost habitat: 1. Poor: No or fe 2. Moderate: Snags with sloughir 3. Optimal: Snags with sloughir Water Resources: 1. Poor: bat of 2. Moderate: Ephemeral or inter openings or canopy gaps allow to 3. Optimal: Streams or ponds (in available. Forest Structure: (if hardwoods 1. Poor: Habitat even aged and y 2. Moderate: some diversity in a may be present but rare. 3. Optimal: Mature forest. Dive gaps that facilitate bat foraging. Land Cover: 1. Poor: Square ki	ew snags >= 5" Di ing bark or other ro drinking resource mittent streams of bats easy access to cluding road ruts are absent or near young. Trees sma age of trees in the crse age classes of	BH with slot roost features oost features es not preser or ponded are to the resource s) present the arly absent of aller than 5 in stand. Tree trees preser	ighing bai is present present > t at the sit eas present e. at appear r if stand i nch DBH. is 5 to 15 in t. Trees >	ck or other 5-15 inch D e. t but too of s monocu Understo ches pres 15 inch D y un-fores	r usable ro DBH with BH withir cluttered t rinking res liture, area ry growth ent. Unde BH frequented. Few	post feat nin 1000 n 1000 fe to allow source t a autom n clutter erstory c ent. Va: mature	feet of foresteet of foresteet of foresteet of foresteet on the many bats to throughout the strically qualized and restricutter dominarying tree heterospresent	ted areas.  d areas.  o drink each  ne majority  ifies as a 1  cts flying/  nant but no  ight and to	sily or simu y of the sur ; poor). foraging of ubiquitor reefalls allo	nmer. Fly us. Trees ow for free	greater th	resource: han 15" I	овн
3	Roost habitat: 1. Poor: No or fe 2. Moderate: Snags with sloughir 3. Optimal: Snags with sloughir Water Resources: 1. Poor: bate 2. Moderate: Ephemeral or inter openings or canopy gaps allow l 3. Optimal: Streams or ponds (ir available. Forest Structure: (if hardwoods 1. Poor: Habitat even aged and y 2. Moderate: some diversity in a may be present but rare. 3. Optimal: Mature forest. Dive gaps that facilitate bat foraging. Land Cover: 1. Poor: Square ki 2. Marginal: Trees present in th 3. Optimal: Area is largely fores	ew snags >= 5" Di ing bark or other re drinking resource mittent streams o bats easy access to acluding road ruts are absent or nea- young. Trees sma age of trees in the arse age classes of lometer surround e form of small we sted. Wooded sta	BH with slot roost features oost features es not preser or ponded are to the resource s) present the arly absent of aller than 5 in stand. Tree trees preser	ighing bai is present present > t at the sit eas present e. at appear r if stand i nch DBH. is 5 to 15 in t. Trees >	ck or other 5-15 inch D e. t but too of s monocu Understo ches pres 15 inch D y un-fores ence rows	r usable ro DBH with BH withir cluttered t rinking res lture, area ry growth ent. Unde BH frequented. Few s. Little co	post feat nin 1000 n 1000 fe to allow source t a autom n clutter erstory c ent. Va mature onnection	feet of foresteet of foresteet of foresteet of foresteet of foresteet on the detection of the feet of the section of the section of the section of the foresteet of the section of the sec	ted areas. d areas. o drink ear he majority ifies as a 1 cts flying/ hant but no ight and to t not conn t forested h, fence ro	sily or simu y of the sur ; poor). /foraging of ubiquitor reefalls allo ected to oth areas.	nmer. Fly us. Trees ow for free	greater the	resource: han 15" I	овн
3	Roost habitat: 1. Poor: No or fe 2. Moderate: Snags with sloughir 3. Optimal: Snags with sloughir Water Resources: 1. Poor: bat of 2. Moderate: Ephemeral or inter openings or canopy gaps allow b 3. Optimal: Streams or ponds (in available. Forest Structure: (if hardwoods 1. Poor: Habitat even aged and y 2. Moderate: some diversity in a may be present but rare. 3. Optimal: Mature forest. Dive gaps that facilitate bat foraging. Land Cover: 1. Poor: Square ki 2. Marginal: Trees present in th 3. Optimal: Area is largely fores  Total Habitat Score (Should be be	ew snags >= 5" Di ing bark or other re drinking resource mittent streams o bats easy access to acluding road ruts are absent or nea- young. Trees sma age of trees in the arse age classes of lometer surround e form of small we sted. Wooded sta	BH with slot roost features oost features es not preser or ponded are to the resource s) present the arly absent of aller than 5 in stand. Tree trees preser	ighing bai is present present > t at the sit eas present e. at appear r if stand i nch DBH. is 5 to 15 in t. Trees >	ck or other 5-15 inch D e. t but too of s monocu Understo ches pres 15 inch D y un-fores ence rows	r usable ro DBH with BH withir cluttered t rinking res lture, area ry growth ent. Unde BH frequented. Few s. Little co	post feat nin 1000 n 1000 fe to allow source t a autom n clutter erstory c ent. Va mature onnectic ls via we	feet of foresteet of foresteet of foresteet of foresteet on the many bats to throughout the datically qualized and restrictutter dominarying tree her trees present to adjacen	ted areas. d areas. o drink ear ne majorit ifies as a 1 cts flying, nant but no ight and to t not conn t forested n, fence ro	sily or simuly of the sur poor). foraging of ubiquitor reefalls allo ected to off areas. w, or other	us. Trees ow for free her areas	greater the	resource: han 15" I	овн

/ Wan	Wa		e %	Moon Phas	Freq.	Band# Type	G/H/B/T	WDI	Height (m)	Net	FA (mm)	Mass (g)	Repr.	Sex	Age	Species	Time	#
Set		Rise			-	7. —	_	0	5	D	44	15,5	TO	M	A	EPRU	9:20	1
2058	1	062		Sun	-	~	-	0	5	D	45	15	NR	F	3		11:00	2
2046		(630		Moon	-	-	-	0	3	0	41	13	PL	F	A	LABO		3
								-				0.77						4
No. Bats	Wind	Sky	Temp (F)	Time					1				1: 21	_				5
1		5	200	9:00			-	-							-		1	6
0	- 1	3	75		-			_							-			7
T.	0	3	70	10:00					-		-				-			8
1	0	2	67	12:00				-							-			9
3	0	2	66	1:00	-						-	-			1			11
0	0	2	64	00.00						_	-	1					-	12
			w /	0,10						_					+			13
_				-							-		-					14
													1 1					15
		Sky Code										7						16
			Clear	0									The state of			7		17
		s	Few Cloud	1								-					= =	18
		idy	Partly Clou	2	7				2-2-1									19
		overcast	Cloudy or	3														20
		ke	Fog or smo	4														21
		light rain	Drizzle or	5														22
	storm	- thunde	Heavy rain	6								1	71 1				L 7	23
					-				1		-		1					24
	Scale	fort Wind										1						25
			Calm: <1 n	0														26
			Light air: 1	1													1 0	27
			Light breez	2									1				-	28
			Gentle bree	3										-				29
	16 mph	reeze: 11-	Moderate b	4														30

Mist Netting Data Form Site No. 19 Project No./Name 412 / Emerson Creek
Site Location Noodlot South of E Township Coad 124

South State OH Time Up 9 10 PM Time Down 2:00 AM

Datum NIAY Date 7/28/2015 Zone — Datum NAO 83 Observers E5, 7AB W/N 82,92948 Lat/Lon; UTM: (N) E 41, 14756 Freq. Band# Mass Height Time Species Repr. FA (mm) Net WDI G/H/B/T Moon Phase Wax / Wane Sex Age (g) (m) Type\_ 9:00 1 ABO Escape A Rise Set 2 9:10 LABO) £ PL 13 40 3 0 Sun 0623 8:55 0 0356 9:20 NR 9 A Moon LABO 38 3 9:50 EPFU A M 48 TO 17.5 D 0 2 5 10:00 EPEL A F PL 49 5.5 265 Temp (F) Time Sky Wind No. Bats TD 15 0 6 10:00 EPFLA A M 460 D 35 ---900 10:45 FPFU A PL 48 5 0 90 D 79 4 11:30 EPFU 2 F NR 14 45 D 4 \_ 3 10:00 11:30 EPFU J D 1,5 M NR 2 2 11:00 EPFU 2:50 4 Esca sed 00.6 73 2 LABO NR 11 1:00 0 12 2:00 0 13 14 15 16 Sky Code 17 0 Clear 18 1 Few Clouds 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 0 Calm: <1 mph 27 Light air: 1-3 mph 1 28 2 Light breeze: 4-6 mph 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_ Unit # Date Stop time\_ Start time Date Start time Stop time Please Return to: Date-Start time Stop time\_ P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing Coordinates (859) 925-9012 Comments: p. 2

(LOD UTM: (N/E 41, 14356 )	N/N 8292948		Zone		Observers_	ESM	ith				_
rum: NAD83 County Seneca	State OH	Quad_	Fire	Side							
Diagram:			Length	a.a.			Domi	nant Veş	getation		
	Net	(m)	(m)	Dates		Maple		4. K	at a	de	_
1	A		9		2. 5has			_5			_
)	В		6		3. E4	m		_6		_	
	C		6			_	Net	Set by H	ahitat		
<u> </u>	E		12	_	Habitat	A	B	C	D	E	F
	F				River	- 13					7
					Stream		X				
C Stream		E 2			Pond			100		1) - 1	
The state of the s		Photogr	raphs		Corridor			X	X		
		nera:			Cave						
¥-	Pho	to Log:_			Mine						
A	_				Forest	X					
					Gap	- / \					
		-			Other						
1. 1. 1 had been a second											
na Bat Habitat Characterization (Ch										V	
Roost habitat: 1. Poor: No or few sn							etc)				
<ol> <li>Moderate: Snags with sloughing b</li> <li>Optimal: Snags with sloughing bar</li> </ol>											
Water Resources: 1. Poor: bat drink				r william 1000	reet of foreste	u areas.					
2. Moderate: Ephemeral or intermitte	ent streams or ponded areas			ittered to allo	w many bats t	o drink eas	sily or simi	ultaneous	ly. No co	orridors,	
openings or canopy gaps allow bats e	easy access to the resource.	n antarija		Van der serre	A	65.500.00	2.0		and divine		
<ol><li>Optimal: Streams or ponds (includ available.</li></ol>	ing road ruts) present that	appear to	o offer drin	king resource	throughout t	he majority	y of the sur	nmer. Fl	yways to	resources	are
Forest Structure: (if hardwoods are	absent or nearly absent or i	f stand is	monoculti	ire, area auto	matically qual	ifies as a 1	noor)				
1. Poor: Habitat even aged and young	g. Trees smaller than 5 incl	DBH. U	Understory	growth clutte	ered and restr	icts flying/	foraging				
<ol><li>Moderate: some diversity in age of</li></ol>	trees in the stand. Trees 5	to 15 inc	hes presen	t. Understory	clutter domi	nant but no	ot ubiquito	us. Trees	greater t	han 15" D	BH
		Tuona > 1	E inch DRI	I (maniont V	antiban tuan ba	dalet and de		and and the	and and a rich	an to the	and and A
may be present but rare.	no alasses of two as avacant		to inch Dbi	a frequent. v	arying tree ne	ight and th	eerans and	ow for fre	quent sm	all openir	
may be present but rare.  3. Optimal: Mature forest. Diverse a	ge classes of trees present.	Trees - I									igs and
may be present but rare.  3. Optimal: Mature forest. Diverse a gaps that facilitate bat foraging.						it not conn			of trees.		igs and
may be present but rare.  3. Optimal: Mature forest. Diverse a gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilome  2. Marginal: Trees present in the form	ter surrounding site predor m of small woodlots and w	ninantly ooded fe	un-foreste	d. Few matur Little connect	e trees presen	t forested a	ected to otl areas.	ner areas			igs and
may be present but rare.  3. Optimal: Mature forest. Diverse a gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilome	ter surrounding site predor m of small woodlots and w	ninantly ooded fe	un-foreste	d. Few matur Little connect	e trees presen	t forested a	ected to otl areas.	ner areas			igs and
may be present but rare.  3. Optimal: Mature forest. Diverse a gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilome  2. Marginal: Trees present in the fora  3. Optimal: Area is largely forested.	ter surrounding site predor m of small woodlots and w Wooded stands are connec	ninantly ooded fe	un-foreste	d. Few matur Little connect	e trees presen ion to adjacen vooded strear	t forested a	ected to otl areas.	ner areas			igs and
may be present but rare.  3. Optimal: Mature forest, Diverse a gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilome  2. Marginal: Trees present in the fora  3. Optimal: Area is largely forested.  Total Habitat Score (Should be between	ter surrounding site predor m of small woodlots and w Wooded stands are connec	ninantly ooded fe	un-foreste	d. Few matur Little connect	e trees preser ion to adjacen vooded strear Please retu	t forested a n, fence roo rn to:	ected to otl areas. w, or other	ner areas wooded		හ	igs and
may be present but rare.  3. Optimal: Mature forest. Diverse a gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilome  2. Marginal: Trees present in the fora  3. Optimal: Area is largely forested.	ter surrounding site predor m of small woodlots and w Wooded stands are connec	ninantly ooded fe	un-foreste	d. Few matur Little connect	e trees presen ion to adjacen vooded strear	t forested a n, fence roo rn to:	ected to otl areas. w, or other	ner areas wooded		හු	igs and

	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

p. 1

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.	Moon Phas	e %	68.	1
1	9.20	EPFU	21	M	NR	11	46	A	3.0	0	na	na	Na			Rise	
2	9.20	EPFU	JV	m		11.25	45	A	5.0	0	na	na	na	Sun		6:20	3.
3		LABO	TV	m	NR	6.5	39	D	0.5	0	06	00	na	Moon		3:34	1
4		EPFU	JV	m	NK	8.75	41	A	30	0	na	na	na				3
5		EPFU	JV	M	MR	13.00		A	3.0	0	100	Na	•	Time	Temp (F)	Sky	
6	10-00	EPFU	A	F	PL	17,75	47	A	3.0	61	na	200	1	Time		Sky	
7		EPFU	A	F	PL	20.5	49	A	5.0	0	no	į	-	9:00	73.0	/	.,
8	15:00	E PFU	JV	M	NR	14.5	46	A	6.0	0	n -	,	1	10.00	70.5	0	
9		EPFU	A	F	FL	16.75	48	Α	5.0	0	na	7		11:00	69.8	1	
10		LABO	JV	F	NR	8.0	41	A	2.0	0	-	-	-	12.00	69.4	1	
11		EPFU	A	M	S	160	44	À	7.0	0	,			1:00	70.3	1	-
12	10:40	EPFU	A	m	5	16.5	45	A	6.0	0		-	-	2:00	70.1		
13		EPFU	A	1=	PL	20.0	47	A	4.0	U		_	5				-
14	11:13	EPFU	JV	F	NR	130	46	A	3,0	0	-	-	-	2	-		
15	11:50	EPFU	A	m	5	19,5	45	A	3.0	D	~	-		-			
16	11.50	EREN	TV	m	NR	0.10	12.0	A	3. D	0	4	1	_			Sky Code	-
17	11:50	EPFU	A	F	QL.	2025	MX	K	5.5	6	-	-	_	0	Clear		
18				-	7-7-6	W 0.	1	7	100					-1	Few Cloud	ls	
19					1-1	_			11					2	Partly Clou	ıdv	
20													7	3	Cloudy or		
21	100		1				TECT I				1			4	Fog or smo		_
22	1				1 1									5	Drizzle or		
23				1 1										6	Heavy rain		rst
24			11												ricary ran	- manac	
25					- 30										Beau	fort Wind	Sc
26			1000											0	Calm: <1 n		
27			11-01			-								1	Light air: 1		_
28	15-7													2	Light breez		h
29	1		1			0						-		3	Gentle bree		
30			7.7		C	7.0	-							4	Moderate l		

Emerson

Date

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

Project No./Name 4/2.61

forest

Mist Netting Data Form

Site Location Forest gap; lougas road; Pond

Site No.\_

Mist Netting Data Form Date 7/30/15 Project No./Name\_ 412\_,01 / EMUSSIN Site No. 10 Site Location Forest gapitogging road; pond in forest Lat/Lon; UTM: N/E 41. 15312 DH Time Up 8:50 Time Down\_ Datum NAD83 Observers J. Storm, M. Newton MYN - 82, 92621 Zone COPPERHEAD Height Band# Mass G/H/B/T 97.6 FA (mm) Time Species Age Sex Repr. Net WDI Moon Phase Wax / Wane (g) (m) Type\_ 9:05 LABO Rise Set 2 47mm Sun 6:25 am 3:51pm 3 ERF! Moon 12:10 pm 5:35 am PL 4 A E Hamis A 4 TREU 14 5 M A 2 Time Temp (F) Sky Wind No. Bats 6 TOFU M Hymn A 0 FPFI 0.40 **T-M** 10 14 D. 17 47mm 0 1 8 38 m NB a Ά -9 LACT 49 core 3 7 IV A -10 NB Hemp A 4 10:00 74 8 11 M 1.4 45mm Q 11:00 12 29 m 2 12:00 0 13 45 2 1:00 631 14 2 20 mm A 62.8 = 100 15 mm 16 Sky Code 9.75 17 0 Clear 18 1 Few Clouds 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 0 27 1 Light air: 1-3 mph 28 Light breeze: 4-6 mph 2 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_\_\_\_ Unit # Date Start time Stop time Date Start time Stop time Please Return to: P.O. Box 73, Paint Lick, KY, 40461. Date Stop time\_ Start time Weatherproofing Coordinates (859) 925-9012 Comments: p. 2

at/Lon; UTM: N/E 41. 15312 W/N	0 Project No./N	Zone —		Observers_	J.51	CA. T	Winor		7/25	
Datum: NAD83 County School	State OH Quad	277.11		-		-				
țe Diagram:	Height	Length				Domi	nant Veg	getation		
A M	Net (m)	(m) D	ates	-	Maple		4.5/4	PRIY 8	lun	
+ 11	A 7.8	9 7/25	7/30			P. Pinsak		Lord		In he co
( x )	B 5.2	10 7/25	730	3. Shag	borkh	chay	6.	VEF MO	nfle	
to the but	C C2		7/30			(				
	D 5.2	6 7/25	7/30	** ** * *			Set by H		-	
271	le E		_	Habitat	A	В	С	D	Е	F
50	F			River						
I Bymmungh				Stream Pond		-		X		
811	Site Photogra	phs	-	Corridor						
	Camera:	Time	- 11	Cave		1	_ `			
That I I I	Photo Log:		- 1	Mine						
1 0 1 1 1 1 1 1				Forest	Death					
orest a			_	Gap	×					
C 112			- 1	Other				-		
The second of th			_							
7			= 1					1		
			teristic)	ures (cracks,	crevices	etc)				
diana Bat Habitat Characterization (Choose applements of the Roost habitat: 1. Poor: No or few snags >= 5°.  2. Moderate: Snags with sloughing bark or other than the Water Resources: 1. Poor: bat drinking resources of the Water Resources: 1. Poor: bat drinking resources of the Water Resources of t	"DBH with sloughing back ther roost features present 5-15 arces not present at the site. In sor ponded areas present be so to the resource. The ruth present that appear to mearly absent or if stand is resmaller than 5 inch DBH. Unthe stand. Trees 5 to 15 inch sof trees present. Trees > 15	or other usable 15 inch DBH with inch DBH with out too cluttered offer drinking a monoculture, are nderstory grownes present. Und inch DBH frequency inch DBH frequen	teristic) roost feature in 1000 feet to allow resource the ea automath clutterederstory cluent. Vary	feet of forest et of forested many bats to arroughout the atically qualited and restrict lutter domin ying tree hei	ed areas. I areas. I drink eas ne majority fies as a 1 cts flying/ ant but no	sily or simuly of the sundants:  poor).  foraging of ubiquitoureefalls allo	nmer. Fly us. Trees w for free	yways to greater t	resource	овн
Roost habitat: 1. Poor: No or few snags >= 5' 2. Moderate: Snags with sloughing bark or othe 3. Optimal: Snags with sloughing bark or othe Water Resources: 1. Poor: bat drinking resources: 2. Moderate: Ephemeral or intermittent stream openings or canopy gaps allow bats easy access. Optimal: Streams or ponds (including road available. Forest Structure: (if hardwoods are absent or 1. Poor: Habitat even aged and young. Trees so 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes	"DBH with sloughing back ther roost features present 5-15 arces not present at the site. In sor ponded areas present be so to the resource.  The roost features present the site. In sor ponded areas present be so to the resource.  The resource areas present to the resource.  The resource areas present that appear to the resource areas present that appear to the stand is resmaller than 5 inch DBH. Unthe stand. Trees 5 to 15 inch as of trees present. Trees > 15 anding site predominantly until woodlots and wooded fender.	or other usable 15 inch DBH with inch DBH with out too cluttered offer drinking a monoculture, are nderstory grownes present. Und inch DBH frequin-forested. Few ce rows. Little	teristic) roost feature in 1000 feet to allow resource the ea automath clutterederstory cluent. Vary	feet of forested many bats to broughout the atically qualited and restrict lutter doming ying tree heit trees presentant of adjacent	ed areas. I areas. I drink eas ne majority fies as a 1 cts flying/ ant but no ght and to	sily or simuly of the sur epoor). foraging of ubiquitor reefalls allo ected to oth	nmer. Fly us. Trees w for free ner areas o	greater to quent sma	resource han 15″ [ all openii	овн
Roost habitat: 1. Poor: No or few snags >= 5' 2. Moderate: Snags with sloughing bark or othe 3. Optimal: Snags with sloughing bark or othe Water Resources: 1. Poor: bat drinking resou 2. Moderate: Ephemeral or intermittent stream openings or canopy gaps allow bats easy acces 3. Optimal: Streams or ponds (including road available. Forest Structure: (if hardwoods are absent or 1. Poor: Habitat even aged and young. Trees s 2. Moderate: some diversity in age of trees in to may be present but rare. 3. Optimal: Mature forest. Diverse age classes gaps that facilitate bat foraging. Land Cover: 1. Poor: Square kilometer surrou 2. Marginal: Trees present in the form of small	"DBH with sloughing back ther roost features present 5-15 arces not present at the site. In sor ponded areas present be so to the resource. The rough present that appear to mearly absent or if stand is remailer than 5 inch DBH. Unthe stand. Trees 5 to 15 inch sof trees present. Trees > 15 anding site predominantly unlined to the stands are connected to other rough present.	or other usable 15 inch DBH with inch DBH with out too cluttered offer drinking a monoculture, are nderstory grownes present. Und inch DBH frequin-forested. Few ce rows. Little	teristic) roost feature in 1000 feet to allow it it to allow it	feet of forest et of forested many bats to broughout the atically quali- ed and restrict lutter dominal ying tree heit trees present to adjacent coded stream	ed areas. I	sily or simuly of the sur epoor). foraging of ubiquitor reefalls allo ected to oth	nmer. Fly us. Trees w for free ner areas o	greater to quent sma	resource han 15″ [ all openii	овн
Roost habitat: 1. Poor: No or few snags >= 5' 2. Moderate: Snags with sloughing bark or othe 3. Optimal: Snags with sloughing bark or othe Water Resources: 1. Poor: bat drinking resou 2. Moderate: Ephemeral or intermittent stream openings or canopy gaps allow bats easy acces 3. Optimal: Streams or ponds (including road available. Forest Structure: (if hardwoods are absent or 1. Poor: Habitat even aged and young. Trees s 2. Moderate: some diversity in age of trees in the may be present but rare. 3. Optimal: Mature forest. Diverse age classes gaps that facilitate bat foraging. Land Cover: 1. Poor: Square kilometer surror 2. Marginal: Trees present in the form of smal 3. Optimal: Area is largely forested. Wooded	"DBH with sloughing back ther roost features present 5-15 arces not present at the site. In sor ponded areas present be so to the resource. The rough present that appear to mearly absent or if stand is remailer than 5 inch DBH. Unthe stand. Trees 5 to 15 inch sof trees present. Trees > 15 anding site predominantly unlined to the stands are connected to other rough present.	or other usable 15 inch DBH with inch DBH with out too cluttered offer drinking a monoculture, are nderstory grownes present. Und inch DBH frequin-forested. Few ce rows. Little	teristic) roost feature in 1000 feet to allow resource the ea automath cluttered erstory cluent. Vary mature to onnection dis via wood.	feet of forested many bats to broughout the atically qualited and restrict lutter doming ying tree heit trees presentant of adjacent	ed areas. I areas. I drink eas ne majority fies as a 1 cts flying/ ant but no ght and to not conni- forested a forested a forested a	sily or simuly of the sur epoor). foraging of ubiquitor reefalls allo ected to other w, or other	nmer. Fly us. Trees w for free ner areas o	greater to quent sma	resource han 15″ [ all openii	овн

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.	Moon Phas	e 50 %		(V	Vax Wan
1	10:20	FPFU	A	F	L	18	46	2	7	0		_	_			Rise		Set
2		EPFU	A	M	5	16.5		2	5	0	_	_	_	Sun		Ole	12	2052
3							1							Moon		138	28	0049
1		(		1														
5														Time	Temp (F)	Sky	Wind	No. Bats
7												-		9:00	75	0	0	0
														10:00	73	0	0	1
														11 00	70	0	0	0
)				J. Hilliams										12 00	68	0	1	0
1									-	-				1.00	66	0	2	1
														2.00	65	0	2	0
					10 mg 4												1	
				71	1				1								1	
5																		
5																Sky Code		
7														0	Clear			
3														1	Few Cloud			
)		P												2	Partly Clou			
														3	Cloudy or			
					1.7						9 -			4	Fog or smo			
2										_	1 = 1			5	Drizzle or	~		
3														6	Heavy rain	ı - thunde	r storm	
1								_							n	C	10.1	
5		_					-		6					- 0	4. 4.	fort Wind	Scale	
7			-			-		-			-		-	0	Calm: <1 n Light air: 1			_
3			-			-								2	Light breez		L	
1														3	Gentle bree			
5			-			7				-				4	Moderate l			

Mist Netting Data Form Site No. CR 122 Site Location Site Location CV \27C

County Sene Ca State OH Time Up 8:45 Time Down

Zone Datum Freq. Height Band# Mass Wax / Wane Moon Phase 50 % FA (mm) G/H/B/T WDI Time Species Age Sex Repr. Net (m) Type\_ 9:40 LABO S 37 2 A M 14 Rise Set 8:55 9:40 EPFU F NR 19 4 -0622 46 Sun W 10:20 EPFU 4 731 51 0 Moon 0240 11:30 EPFU M 22.5 49 5 4 0 5 Temp (F) Wind No. Bats Time 6 76 100 8 10:00 75 9 11:00 10 12:00 0 11 00 71 0 0 12 2:00 0 68 0 13 14 15 16 Sky Code 17 0 Clear 18 Few Clouds 1 19 Partly Cloudy 20 Cloudy or overcast 21 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 0 Calm: <1 mph 27 Light air: 1-3 mph 28 Light breeze: 4-6 mph 29 Gentle breeze: 7-10 mph Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_ Unit # Date Start time Stop time\_ Stop time Date Start time Please Return to: Stop time\_ Date Start time\_\_\_\_\_ P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing Coordinates (859) 925-9012 Comments: p. 2

Mist Net Site : Lat/Lon; UTM: 1		Site No. 1	9223	7.7.7		Zone -	412/ Emis	Observers		ZRR			-23-15	
Datum:	County_ 5	A	State_	OH	Quad	Fires	ride							
Site Diagram;	county	1				Length				Domi	nant Veg	getation		
In 2	1 -3			Net	(m)	(m)	Dates	1. Comp	MADOD		4. ELM			
1/00	10 a	0		Α	9	6	7/23/15 7-27	2. REFM			_5 L.A.	ALLET		
7 111 -	200	2	1	В	9	9	7/23/15 7-27	3. RED 01	×		6		_	_
D Z	21/247 3	A.		C	6	b	7/23/15 7-21			N7	C . 1 . 77			
17/10	DP 50	181	1	D	6	6	7/23/15 7-27	Thelifere	A .	Net B	Set by H	abitat D	E	T/
V/10	1000	2/3/	1000	E F				Habitat River	A	D	С	ь	Е	r
13/10	1	J9/ /N		P				Stream				~		
2110 =	1000	154						Pond	-		-			-
01/5	( DO = 1	10		Site	Photogr	raphs		Corridor	~	Y	V			
7/	Q MA				era:			Cave						
AL OB	~ ~)	1301		Phot	o Log:_			Mine		F	7		1	ĺ
1/1								Forest						
3/10		00	1					Gap						4
	T N	10 5	1	_				Other						
110	Ve ty	-B	V	-										
3. Optin  2. Mode opening 3. Optin available  3 Forest S 1. Poor: 2. Mode may be 3. Optin	Structure: (if hardwoods Habitat even aged and y erate: some diversity in ag present but rare. nal: Mature forest. Diver	ag bark or other redrinking resource mittent streams of pats easy access the including road rule are absent or ne young. Trees small ge of trees in the	roost features not pre- or ponded to the resorts) present array absertaller than a stand. T	ures present aid areas ource. At that a nt or if inchirees 5	resent >1 If the site is present appear to stand is DBH, I to 15 inc	5 inch D but too o offer do monocu Understo	BH within 1000 for cluttered to allow rinking resource to alture, area automory growth clutter ent. Understory of	many bats to throughout th natically qualitied and restriction	d areas.  o drink each  ne majorit  ifies as a 1  cts flying/ ant but no	y of the su : poor). 'foraging ot ubiquite	mmer. Fly	yways to greater t	resources han 15″ [	овн
2 Land Co	at facilitate bat foraging.  over: 1. Poor: Square kildinal: Trees present in the	e form of small v	voodlots	and wo	ooded fe	nce rows	sted. Few mature s. Little connection	on to adjacent	forested	areas.				
	nai. Area is largely lores	sted. Wooded St	ands are t	cornice		ner woo	ded stands via w	ooded stream	i, rence ro	w, or othe	r wooded	corridor.		
3. Optin	bitat Score (Should be be		ands are t	connec		ner woo		Please retur		w, or othe	r wooded	corndor.	2	
3. Optin			ands are t	connec		ner woo			n to:			corndor.	හ	

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

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

p. 1

29

30

Mist Netting Data Form Project No./Name 4/2 / Emerson Creek Date 7/08/15 Site No. 13 Site No. 13 Project No./Name 412 / Ewerson Creek Date 7 88/5
Site Location Wood of 1950 Food 2 Stream

County Seneral State Of Time Up 8:55 Time Down 155

Lat/Lon; UTM: N/E 1 7809 W/N 82, 89002 Zone Datum N 8083 Observers J. Stream J. Lisse Freq. Band# Mass Height FA (mm) WDI G/H/B/T %92.8 Species Net Moon Phase Wax / Wane Time Sex Repr. Age (g) (m) Type Set 6:23 2:54 2 Sun 3 Moon 3.56 am 4 5 Time Temp (F) Sky Wind No. Bats 6 7 9:00 8 10:00 9 11 100 0 1010.7 10 12:00 65.4 0 11 1:00 65.3 0 0 12 104.5 2:00 13 14 15 16 Sky Code 17 0 Clear 18 Few Clouds 1 19 2 Partly Cloudy 20 Cloudy or overcast 3 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 27 Light air: 1-3 mph 28 Light breeze: 4-6 mph 29 3 Gentle breeze: 7-10 mph Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_\_\_\_ Unit# Stop time\_ Date Start time\_\_\_\_ Stop time Date Start time Please Return to: Start time\_\_\_\_\_ Stop time\_ P.O. Box 73, Paint Lick, KY, 40461. Date Weatherproofing Coordinates (859) 925-9012 Comments: p. 2

Mist Net Site Habitat Sheet Site No. 15	Project No./Name	412 , EW	erson	( neo de			Data	7/26	115
	89 06 2 Zone -		Observers		w T.	(Cl. nas		1100	11-
	State OH Quad Fives	ide_	COSCIVEIS_	9, 9, 4,	m.j. v.	T. F. G.	-		
Site Diagram:	Height Length				Domin	ant Ves	etation		
1/ 1/6	Net (m) (m)	Dates .	1 Stero	ry elm			en Arh		
fourth 1	A 6.2 10	7/26+7/28	2. America			5.			
C/RAS	B 4.8 9	7/2697/23	3. Hack			6			
1000	C 5.2 6	7/2614128		,					
111253	D 5.2 10	7 2617 28	Table -		Net S	et by H	abitat		
Soy bear	E		Habitat	A	B 3	C	D	E	F
The state of the s	F		River					150	
June 10 Miles July 1			Stream				X		
20			Pond					-	
	Site Photographs		Corridor	×	X	X			
\ Forest 1	Camera:		Cave						The same
la la	Photo Log:		Mine						
13			Forest		×				
Folest and			Gap		^		-		
1 1/2	-		Other						
acres 1/3	-								
Indiana Bat Habitat Characterization (Choose approp									
Roost habitat: 1. Poor: No or few snags >= 5" DBI 2. Moderate: Snags with sloughing bark or other roo 3. Optimal: Snags with sloughing bark or other roo Water Resources: 1. Poor: bat drinking resources 2. Moderate: Ephemeral or intermittent streams or openings or canopy gaps allow bats easy access to t 3. Optimal: Streams or ponds (including road ruts) available.  Forest Structure: (if hardwoods are absent or nearl 1. Poor: Habitat even aged and young. Trees small 2. Moderate: some diversity in age of trees in the st may be present but rare. 3. Optimal: Mature forest. Diverse age classes of tr gaps that facilitate bat foraging.  Land Cover: 1. Poor: Square kilometer surroundin 2. Marginal: Trees present in the form of small woo	post features present 5-15 inch post features present >15 inch D not present at the site.  ponded areas present but too othe resource.  present that appear to offer did absent or if stand is monocuter than 5 inch DBH. Understo and. Trees 5 to 15 inches present as present. Trees > 15 inch D and a site predominantly un-fores	DBH within 1000 fer within 1000 fer cluttered to allow rinking resource to the liture, area automary growth clutters and. Understory of BH frequent. Varieted. Few mature	feet of foresteet of foresteet of foresteet of foresteet on the many bats to have been been been been been been been be	ted areas.  d areas.  o drink eas  ne majority  ifies as a 1:  cts flying/ hant but no  ight and tre	ily or simul of the sum poor). foraging t ubiquitouseefalls allov	mer. Fly s. Trees v for free	ways to greater th	resources nan 15″ D	овн
3. Optimal: Area is largely forested. Wooded stand	ds are connected to other wood	ded stands via wo	oded stream	, fence row	, or other v	vooded (	corridor.		
Total Habitat Score (Should be between 4 & 12)			Please retur					2	
Comments:			P.O. Box 73,		KY 40461			≥0'	

Mist Netting	Data	Form
--------------	------	------

0					SheetUt
Site No. 16	Project No./Name_	412.01 / EMESON CO	reelf Dat	te 7-23-15	
Site Location Pond i	N Wood LOT WEST	CFCR18 and South OF	East county Rd 24	6	
County SONECE	State OH	Time Up 09000m Time			· CO
Lat/Lon; UTM:/N/E 4	1.157652 WIN	Time Up 09000m Time 1	Datum Obs	servers BRemley/	A. McGOS PERHEAD
	0,			10.1	COPPERHEAD

#	Time	Species	Age	Sex	Repr.	Mass (g)	FA (mm)	Net	Height (m)	WDI	G/H/B/T	Band# Type	Freq.
1	9:30	EPFU	Esc	assed	while	lower	ing ne	-B	3	-	_	_	/
2	9:40	EPFU	A	F	PL	17.5	44	A	2	0	NA	NIA	NA
3	9:50	EPFU	A	F	PZ.	19.75	47	D	2	0	N/H	UA	NA
4	10:20	EPFU	J	M	NYL	9.75	43	A	5	0	NIA	NA	N/A
5	10:40	EPFU	IA	F	PL	19.0	47	A	6	j	NIA	NIA	
6	11:00	EPFU	J	F	NR	15.0	46	A	7	0	NIA	NA	NA
7	11:20	EPFU	A	F	PL	22.0	49	Α	6	0	NIA	NIA	NA
8						7.5							1
9				-									
10								= - '					
11	1 - 3												
12													
13					-								
14			_ =								1		
15					-								-
16												1	
17	L 5.			7 7 7					4	-			
18						-	4						
19				1 (4)									
20						To j							
21													
22	-			-		17-1							
23													
24					2.00		1					A. —	
25									1				
26									- 1				
27					1		1						
28				24		- 31			1				
29									1 = = 1				
30			1										

Moon Phase 49 %	0	Wax / Wane
	Rise	Set
Sun	6:12	20:52
Moon	13.28	00:45

Time	Temp (F)	Sky	Wind	No. Bats
0900	74	1	0	NIA
1000	68	0	0	3
1100	63	0	0	3
1200	60	0	0	-1
0100	61	0	0	0
0200	61	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

Please Return to:

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

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

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)

p. 1

Mist Netting Data Form Site No. 6 Project No./Name 412.01 / Engreson Creeks
Site Location fond in wood lot West of CR18 + South OF East County Rd Date County GeNCCA State OH Time Up 8:55 Time Down ONSS Lat/Lon; UTM: N/E 41,157652 W/N -82,989259 Zone Datum NAD83 Observers B. Rentey/R. McGrego Freq. Band# Height Mass FA (mm) WDI G/H/B/T Moon Phase (Wax / Wane Net Time Species Sex Repr. Age (g) (m) Type\_ PL 46 NIA NIA 10:00 EPFU 16,5 A Rise Set NA 8:5512 10:00 EPFU 3 45 MA MA A Sun 4 10,00 FEPFU PL NIX A 185 48 NIA NA Moon 5:31 PM 2:46 AN 10:20 E PFU W NR 13.5 46 NIA WIA 4 T 5 11.00 EPFU 5 NR 15.0 45 1,5 Time Wind Temp (F) No. Bats 11750 EPFU 19,0 46 NIA MA M NR 2 N/A 6 A 0 900 13:40 LABO 7 NR QO NIA N/A NIA NIL 1000 74 8 0 9 73 10 11 100 12 200 69 13 14 15 Sky Code 16 17 0 Clear 18 1 Few Clouds 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 0 Calm: <1 mph 27 Light air: 1-3 mph 1 28 2 Light breeze: 4-6 mph 29 3 Gentle breeze: 7-10 mph 30 Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_\_\_\_ Unit # Stop time\_ Date Start time Date Start time Please Return to: Stop time\_ P.O. Box 73, Paint Lick, KY, 40461. Date Start time Stop time\_ Weatherproofing (859) 925-9012 Coordinates Comments: p. 2

atum: NAV63 County Seveca	2,989,259 Zone State <u>OH</u> Quad Fireside	Observers_	B. Ren	lay /R	McGu	egol		_
te Diagram ( fast) /	Height Length		-	Domin	ant Ve	getation		_
it Diagram	Net (m) (m) Date	1 5400	maple	Domini		ed Og	k	_
7. 1			bary H:	Korg	5		-	
The state of the s	4 5 6 1 1 1 1 1	A 1	white		6			
Net A Fore	C 5.2 6 7/23/15				-			
1/	D 5.2 6 7/23/5			Net S	et by H	abitat	-	_
Just Catalle 1 140	E 9. C MEND	Habitat	A	В	Č	D	E	I
r contails	F	River						
Trats	\_	Stream	( - T - 2	LI TOU				
	Y-	Ponde	T. T. 19	V			-	
	Site Photographs	Corridor			V	V		
Pond NAS 1	NET Camera:	Cave						
	Photo Log: Downlanded	Mine	71		-		-	
	to google drive sit	e 16 Forest					7	
wet and		Gap				1:		
Dedict / fores	1	Other						
Year.								
1								
Roost habitat: 1. Poor: No or few snags >= 5" Di  2. Moderate: Snags with sloughing bark or other of the stage of the stag	BH with sloughing bark or other usable ro roost features present 5-15 inch DBH with cost features present >15 inch DBH within es not present at the site. Or ponded areas present but too cluttered to the resource.  (s) present that appear to offer drinking resurly absent or if stand is monoculture, area	ost features (cracks in 1000 feet of fores 1000 feet of foreste o allow many bats to ource throughout to automatically qual	ted areas, d areas. o drink eas he majority lifies as a 1:	ily or simu of the sun				

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

Please Return to:

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

Mist Netting Data Form Project No./Name 412 / Emerson Creek Date 7/31/15 Site No. 24 Site Location Loaging road through wood lot; open water of emergent wetland County Servera State OH Time Up 050 Time Down 1:50

Lat/Lon; UTM: N/E 4 17804 W/N 82-8886 Zone Datum N4083 Observers J. Storm, M. Niwisa Band# Height FA (mm) Net G/H/B/T Wax / Wane WDI Moon Phase Repr. Time Species Age Sex (m) (g) Type\_ 10:30 EPFU 48mm Set 2 9:51pm 2 Sun 6:25 am Moon 9:23. Pm 9:10 am 3 4 5 Time Temp (F) Sky Wind No. Bats 6 7 9:00 2 0 8 10:00 68.0 9 67.4 2 0 11:020 10 0 12:00 67.2 103.4 11 0 0 1100 12 62.6 2:0 13 14 15 16 Sky Code 17 0 Clear 18 1 Few Clouds 19 Partly Cloudy 2 20 3 Cloudy or overcast 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 Beaufort Wind Scale 26 Calm: <1 mph 27 Light air: 1-3 mph 1 28 Light breeze: 4-6 mph 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type Unit # Date Start time Stop time\_ Date Start time Stop time Please Return to: Stop time\_\_\_ P.O. Box 73, Paint Lick, KY, 40461. Date Start time\_\_\_\_ Weatherproofing (859) 925-9012 Coordinates Comments: p. 2

Lat/Lon; UTM: N/E 4//	1.17804	Site No W/N - 8	2.88861		ect No./	Zone_	_	Werson Observers		ca: M	. New	Date_		
A A tex most	County Se	neco	State_	OH	Ouad	Fires	ide							
Site Diagram:			N			Length				Domin	ant Veg	getation	1.	
1 1 4			1	Net	(m)	(m)	Dates	1. Shellen		arg	4. red	innale		
1	YE	2.7	1	A	5.2	10	7/29 97/31	2. Blatt			5. TEG	pat		
J. Some		1.1		В	5,2	(0	7/19 +7/31	3. Shppe.	y elm		6. FIR	Dak		
1 Settled	(	1 >		C	5.2	6	7/29							
got or	10	1 10		D	7.8	9	7/29 +7/31				et by H	abitat		
De 1 10 1	12 D	1	F +	E	5,2	9	731	Habitat	A	В	С	D	E	F
cal home	ψ <sup>n</sup>	1.4	Forest	F				River						
The same	200	3.7						Stream		- 11				
	7	1-18			-			Pond		11				1,3
	Y.	3177			Photog	raphs		Corridor	X	X	X			
	1	2.1		W. C. C.	nera:	_		Cave						
	5	3.70		Pho	to Log:_			Mine				-		
	L.	77.	*	-				Forest						
				_				Gap Other						
	1			-				II Other I				1		
			1000										3.7	
								interland	crevices, e	etc)		×	X	
Indiana Bat Habitat Cha  Roost habitat: 1.1 2. Moderate: Snags 3. Optimal: Snags Water Resources: 2. Moderate: Ephe openings or canop 3. Optimal: Stream available. Forest Structure: 1. Poor: Habitat ev 2. Moderate: some may be present bu 3. Optimal: Matur gaps that facilitate Land Cover: 1. Po 2. Marginal: Tree	Poor: No or gs with slough s with slough : 1. Poor: ba emeral or int py gaps allow ms or ponds (if hardwoo even aged and the diversity in ut rare. the forest. Dive bat foraging foor: Square	few snags >= 5 ghing bark or othing bark or othing bark or other ermittent streat w bats easy accedincluding road ds are absent of dyoung. Trees age of trees in werse age classes g. kilometer surro	ppropriate s 5" DBH with ther roost feat thereof roost feat th	sloug tures p resent a d areas ource. t that nt or i: 5 inch rees 5	hing bar present 57 resent >7 at the site is present appear t f stand is h DBH. I to 15 inc Trees > 2	k or othe 6-15 inch D 5 inch D 6 but too 6 offer d 6 monocu Underste 6 hes pres 15 inch D	er usable roost fear DBH within 1000 DBH within 1000 for cluttered to allow rinking resource to alture, area automory growth clutter sent. Understory of DBH frequent. Va ested. Few mature	tures (cracks, deet of forested many bats to throughout th matically qualified and restrictly clutter dominations rying tree height	ed areas. areas. drink eas e majority fies as a 1: ts flying/ ant but no	of the sum poor). foraging tubiquitou eefalls allow	nmer. Fly us. Trees w for free	ly. No co yways to greater t quent sm	orridors, resource han 15″ I	ЭВН
Roost habitat: 1.  2. Moderate: Snags 3. Optimal: Snags Water Resources: 2. Moderate: Ephe openings or canop 3. Optimal: Stream available. Forest Structure: 1. Poor: Habitat ev 2. Moderate: some may be present bu 3. Optimal: Matur gaps that facilitate	Poor: No or gs with slough s with slough : 1. Poor: ba emeral or int py gaps allow ms or ponds (if hardwood even aged and the diversity in ut rare. are forest. Divide bat foraging oor: Square in this largely for	few snags >= 5 ghing bark or or ghing bark or or at drinking reso germittent strea w bats easy acce (including road ds are absent or d young. Trees age of trees in werse age classe g. kilometer surro the form of smare rested. Woode	ppropriate s 5" DBH with ther roost feat thereose so the resc thereose so the resc thereose smaller than the stand. Thereose free pre- thereose so trees pre- thereose p	sloug tures p resent a d areas ource. t that nt or i 5 incl rees 5	hing bar present 5 resent >1 at the site s present appear t f stand is h DBH. I to 15 inc Trees > 1	k or othe is-15 inch D is inch D is but too o offer d is monocu Understo ches pres 15 inch D un-fores	er usable roost fear DBH within 1000 DBH within 1000 for cluttered to allow rinking resource to alture, area automory growth clutter tent. Understory of DBH frequent. Valuated. Valuated. See mature sted. Few matures. Little connection	tures (cracks, deet of forested many bats to throughout th matically qualified and restrict clutter dominations trees present on to adjacent	ed areas. areas. drink eas e majority fies as a 1: ts flying/ ant but no ght and tr not conne forested a fence rov	poor). foraging the ubiquitous eefalls allowered to other words.	nmer. Fly us. Trees w for free er areas o wooded o	ly. No co yways to greater t quent sm of trees.	orridors, resource han 15″ I	овн

Mist Netting Data Form Project No./Name 4/2 / Emerson Creek Date 29-5214-2015 Site No. 36 Site Location woodlot County Screen State OH Time Up 2050 Time Down 0 53

Lat/Lon; UTM: N/E 41. 15548 W/N 83. 00470 Zone NA Datum NAD 83 Observers P. Sewel Height Band# Mass Moon Phase 95 % G/H/B/T Wax / Wane WDI Repr. FA (mm) Net Time Species Sex Age Type\_ EPFU 17.5 44 Rise Set 2150 0 A 0623 2053 Sun 0110 FPFU 48 0432 Moon 3 4 5 No. Bats Time Temp (F) Wind 6 2100 2200 8 0 9 D 10 10000 1 0 11 72 2 70 Ö 12 0200 13 14 15 16 Sky Code 17 Clear 0 18 1 Few Clouds 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 0 27 Light air: 1-3 mph 1 28 Light breeze: 4-6 mph 2 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_\_\_\_ Unit# Date Start time Stop time\_ Date Start time Stop time\_ Please Return to: Stop time P.O. Box 73, Paint Lick, KY, 40461. Date Start time\_\_\_\_ Weatherproofing\_ (859) 925-9012 Coordinates Comments: p. 2

V10

Mist Netting Data Form Site No. 3( Project No./Name 4/2
Site Location 4/2 1 Envisor Crerda Date 7/3/1/5 County Screen County Scarts State OF WN 8 Time Up 2043 Time Down 0/55 Datum NAPSObservers & Sevel 00470 Zone Freq. Mass Height Band# G/H/B/T Time Species Sex Repr. Net WDI Wax / Wane Age FA (mm) Moon Phase 70 % (m) Type Rise Set 130 EAFU 0 \_ Sun 0626 3 Moon -0754 4 5 Temp (F) Time Sky Wind No. Bats 6 1-1/5 114 r ot li 2100 13 8 151 2200 9 EFTI 21 \_ 2300 10 1715 EFEU .6 0000 11 P 12.07 EFELA 615 D110 1.480 12 12.25 44 0100 13 14 15 16 Sky Code 17 0 Clear 18 1 Few Clouds 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 0 Calm: <1 mph 27 1 Light air: 1-3 mph 28 2 Light breeze: 4-6 mph 29 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); Lasionycteris noctivagans (LANO); Myotis austroriparius Please Return to: (MYAU); Myotis grisescens (MYGR); Myotis leibii (MYLE); Myotis lucifugus (MYLU); Myotis septentrionalis (MYSE); Myotis sodalis P.O. Box 73, Paint Lick, KY, 40461. (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR) (859) 925-9012 Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR p. 1

Mist Netting Data Form Project No./Name SOI / Emerson West Date 19 July 2016 Site No. Site Location Sugar Creek and adjacent Ag. Field north of CR38 County\_ Senece State OH Time Up 2100 Time Down 0200 Zone \_\_ Datum\_NAD83 Observers T. Culbertson, A. Hawkin Lat/Lon; UTM: (DE 41.16944 Freq. Mass Height Band# Time Species Sex Repr. FA (mm) WDI G/H/B/T %Full Age Net Moon Phase Wax / Wane (g) (m) Type\_ Rise Set 2 Sun 0616 2100 3 Moon 2042 0602 4 5 Time Temp (F) Wind No. Bats 6 7 2100 8 2200 67 0 9 0 2300 2 0 10 0 0 0000 65 11 0 6100 62 0 0 12 0200 60 13 14 15 16 Sky Code 17 Clear 0 18 1 Few Clouds 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 Beaufort Wind Scale 26 Calm: <1 mph 27 Light air: 1-3 mph 1 28 2 Light breeze: 4-6 mph 29 3 Gentle breeze: 7-10 mph Moderate breeze: 11-16 mph 4 Acoustic Survey: Unit type\_\_\_ Unit# Date Start time\_ Stop time\_ Date Start time Stop time\_ Please Return to: Date Start time\_\_\_\_ Stop time\_ P.O. Box 73, Paint Lick, KY, 40461. Weatherproofing Coordinates (859) 925-9012 Comments: p. 2

Mist Net Site Hab	itat Sheet	Site No		Proje	ect No./N	Name_5	01/ E	mersor	Ne	5+		Date_	1July2	016, 1	
Lat/Lon; UTM: NE		(W) N	83.0422	9		Zone		Observers_	TCUB	ertson,	A Haw	kins			
Datum: NAD 83	_ CountyS	ieneca	State_	OH	Quad_	Wa	Son								
Site Diagram:					Height					Domi	nant Ve	getation			
///	1			Net	(m)	(m)	Dates	1. Acer			_4				
of to	-O Net E	An	Field	A	2.6	4	7/11 , 7/19	2. Aces			5				
13		119.	10.0	В	2.6	6	7/11 7/19	19 3. Juglans nigra 6.							
10				С	5.2	9	7/11	Net Set by Habitat							
1	×			D	7.2	9	7/11 7/19				-				
////	1	Vet D		Е	5.2	12	711719	Habitat	A	В	C	D	E	F	
///	101	VCL 5		F	1.40		1	River							
1000	1/0							Stream	X	X					
, Netc	/ Neec			0::	DI .			Pond							
1/1/				Site	Photogr	aphs	ntax	Corridor			1			-	
woodlot Ne	+B		1		amera: Red Pent noto Log: Net A. 15			Cave			-			-	
(0000-101 //06	1		- 1	Phot				Mine		-	-				
1711	A	7	1/	D. 1549 E. 1550			Forest			X					
11/	1//	A LOVA	Ν				Gap Other			1 / /			-		
1 1 1	500-	a Net A					Outer				×	X.			
	CR 38	151					00				1	Edge	Edge		
3. Optimal: S Water Resou 2. Moderate: openings or of 3. Optimal: S available.	Snags with sloug cnags with sloug cres: 1. Poor: b Ephemeral or in canopy gaps allo treams or ponds	hing bark or o at drinking re termittent stre w bats easy ac s (including ro	ther roost feati sources not pre- eams or ponded cess to the reso ad ruts) presen	ures present a d areas ource.	resent >1: It the site. Is present	5 inch D but too o	BH within 1000 is	feet of foreste v many bats t throughout t	d areas. o drink ea he majorit	ty of the su				are	
Forest Structure: (if hardwoods are absent of 1. Poor: Habitat even aged and young. Trees 2. Moderate: some diversity in age of trees in may be present but rare. 3. Optimal: Mature forest. Diverse age class gaps that facilitate bat foraging.		es smaller than in the stand. T sses of trees pre	5 inch rees 5 esent.	DBH. Uto 15 incl	Jndersto hes prese 5 inch D	ry growth clutte ent. Understory BH frequent. Va	red and restr clutter domin arying tree he	icts flying nant but n eight and t	/foraging ot ubiquito reefalls all	ow for fre	equent sn				
2. Marginal:	1. Poor: Square Trees present in Area is largely fo	the form of si	mall woodlots	and w	ooded fe	nce rows	. Little connecti	on to adjacen	t forested	areas.					
Total Habitat	Score (Should be	between 4 &	12)					Please retu	rn to:			4	2		
Comments:	~							P.O. Box 73		k, KY. 404	61				
								859-925-901	2			LNYILDN	PERH	E A	

Mist Netting Data Form Site No. 2 Project No./Name 501.01 | Emerson Wast
Site Location Narrow word lot between confector Date // July County Seneral State OH Time Up 2050 Time Down O205

Lat/Lon; UTM: N/E 4/.203/9 W/N 82.86885 Zone Datum NAD 83 Observers C. Leftisch Freq. Mass Height Band# Time Species G/H/B/T Wax Wane Age Sex Repr. FA (mm) Net WDI Moon Phase % 50 (g) (m) Type\_ 2151 LABO 120 0 Rise Set 2335 ERFU NR 17.5 2105 5.0 0608 Sun 3 1330 Moon 0047 4 5 Temp (F) Sky Wind No. Bats 6 7 72 2100 8 0 64 2200 0 9 0 0 2300 0 10 63 0 0 0000 11 0100 12 0200 13 14 15 16 Sky Code 17 Clear 0 18 Few Clouds 1 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 0 Light air: 1-3 mph 1 28 2 Light breeze: 4-6 mph 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type Unit # Date Start time Stop time\_ Date Start time Stop time\_ Please Return to: P.O. Box 73, Paint Lick, KY, 40461. Date Start time Stop time\_ Weatherproofing (859) 925-9012 Coordinates Comments: p. 2

Mist Netting Data Form I Emerson West Project No./Name\_501 Site No. Site Location County Since State Ohio Time Up 2050 Time Down 0205

Lat/Lon; UTM: 18/18 4620319 ON/N 82.86285 Zone Datum NAD 83 Observers Co hat fruich Freq. Band# Height Net WDI G/H/B/T Moon Phase Repr. FA (mm) Species Sex Time Age (m) Type\_ (g) Rise ABO Sun 2 Moon 3 4 5 Time Temp (F) Sky Wind No. Bats 6 8 0 9 0 10 2 0 11 0 2 12 13 14 15 Sky Code 16 0 Clear 17 1 Few Clouds 18 2 Partly Cloudy 19 3 Cloudy or overcast 20 Fog or smoke 4 21 5 Drizzle or light rain 22 Heavy rain - thunder storm 23 24 **Beaufort Wind Scale** 25 0 Calm: <1 mph 26 1 Light air: 1-3 mph 27 2 Light breeze: 4-6 mph 28 Gentle breeze: 7-10 mph 3 29 Moderate breeze: 11-16 mph Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus Please Return to: borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasionycteris noctivagans (LANO); Myotis austroriparius P.O. Box 73, Paint Lick, KY, 40461. (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) (859) 925-9012 Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR p. 1

1 /	: N/E 4/. 203/9 W/N 82	. 8628	35	Zone		Observers	C. Le	ftw.c	6		-	
	2 83 County Senera	State C		_				shmore				
Site Diagram:		NA		t Length	July		7-1			getation		
	00554	11	Net (m)	(m)	Dates	1. J. nig	ca			a and	u con a	
	gras/		A 2.10	1	11.16	2.5.00	919		5.			
	Trail	- 0	B 52	16	11:160	3. P. CE	Hoder		6.			
Ø			C 5.2	4	11. 110							
0			D 5.2	6	11. 16			Net !	Set by H	labitat		
	TB Ah	DD	E 7.8	9	11	Habitat	A	В	C	D	E	F
1	8 00 D W	7 3,	F	1	1	River						
	2 2 13	5 3				Stream						
	19/10,	7				Pond		1		1		
	8 200	12	Site Photog	raphs		Corridor	X	X	X	X	X	
	(6)	10	Camera:	CL		Cave	,			-		
	11 6	101	Photo Log:			Mine						
16/-11	9	16				Forest		-				
10 Dell		1				Gap						
the state of		31				Other						
	0 A 0								1			
	(1)	1 1										
	abitat Characterization (Choose appr habitat: 1. Poor: No or few snags >= 5" I						crevices,	etc)				
Roost 2. Mod 3. Opti Water 2. Mod openin 3. Opti availab Forest 1. Poor 2. Mod may be 3. Opti gaps th Land O	habitat: 1. Poor: No or few snags >= 5" I derate: Snags with sloughing bark or other timal: Snags with sloughing bark or other Resources: 1. Poor: bat drinking resource derate: Ephemeral or intermittent streams ags or canopy gaps allow bats easy access timal: Streams or ponds (including road ruble.  Structure: (if hardwoods are absent or near: Habitat even aged and young. Trees smalerate: some diversity in age of trees in the present but rare.  imal: Mature forest. Diverse age classes of that facilitate bat foraging.  Cover: 1. Poor: Square kilometer surrounce.	DBH with ser roost features not presor ponded to the resorts) present early absertaller than the stand. To fires present ding site p	sloughing bar ures present res present > sent at the sit areas presen urce. t that appear at or if stand if 5 inch DBH. rees 5 to 15 in sent. Trees >	rk or other 5-15 inch I 5 inch I e. t but too to offer d s monoci Underste ches pres 15 inch I	er usable roost for DBH within 100 DBH within 1000 cluttered to allow rinking resource alture, area autory growth cluttent. Understory DBH frequent. Visted. Few matures.	eatures (cracks, 00 feet of forests of feet of forests of feet of forests ow many bats to e throughout the omatically qualitiered and restrictly clutter dominuter of feet of	ed areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no	sily or simuly of the sure poor).  If oraging of ubiquito reefalls allowed	mmer. Fl ous. Trees	yways to s greater t	resources	ОВН
Roost 2. Mod 3. Opti Water 2. Mod openin 3. Opti availab Forest 1. Poor 2. Mod may be 3. Opti gaps th Land C 2. Mar	habitat: 1. Poor: No or few snags >= 5" I derate: Snags with sloughing bark or other timal: Snags with sloughing bark or other in Resources: 1. Poor: bat drinking resource derate: Ephemeral or intermittent streams ags or canopy gaps allow bats easy access timal: Streams or ponds (including road ruble.  Structure: (if hardwoods are absent or near: Habitat even aged and young. Trees smaderate: some diversity in age of trees in the present but rare.  imal: Mature forest. Diverse age classes of that facilitate bat foraging.	DBH with ser roost features not preson ponded to the reson this present aller than the stand. To the trees present ding site p woodlots a	sloughing bar ures present res present > sent at the sit areas present urce. It that appear at or if stand if 5 inch DBH. rees 5 to 15 in sent. Trees >	ck or other 5-15 inch I 5 inch I e. t but too to offer d s monoci Underste ches pres 15 inch I y un-fore ence row	er usable roost for DBH within 100 DBH within 1000 cluttered to allow rinking resource alture, area autory growth cluttent. Understory DBH frequent. Votels Few matures. Little connections	eatures (cracks, 00 feet of forests of feet of forests of feet of forests ow many bats to e throughout the omatically qualitiered and restrictly clutter dominuter of feet of	ed areas. I areas. I drink eas the majority fies as a 1: cts flying/ ant but no	sily or simular of the sure poor). If oraging of ubiquito reefalls allowered to offereas.	numer. Fl ous. Trees ow for fre her areas	yways to s greater t equent sm of trees.	resources than 15" I	ОВН
Roost 2. Mod 3. Opti Water 2. Mod openin 3. Opti availab Forest 1. Poor 2. Mod may be 3. Opti gaps th Land C 2. Mar 3. Opti	habitat: 1. Poor: No or few snags >= 5" I derate: Snags with sloughing bark or other timal: Snags with sloughing bark or other Resources: 1. Poor: bat drinking resource derate: Ephemeral or intermittent streams ags or canopy gaps allow bats easy access timal: Streams or ponds (including road ruble.  Structure: (if hardwoods are absent or near: Habitat even aged and young. Trees smalerate: some diversity in age of trees in the epresent but rare.  imal: Mature forest. Diverse age classes on that facilitate bat foraging.  Cover: 1. Poor: Square kilometer surrounce ginal: Trees present in the form of small wimal: Area is largely forested. Wooded stimal: Area is largely forested.	DBH with ser roost features not preson ponded to the reson this present aller than the stand. To the trees present ding site p woodlots a	sloughing bar ures present res present > sent at the sit areas present urce. It that appear at or if stand if 5 inch DBH. rees 5 to 15 in sent. Trees >	ck or other 5-15 inch I 5 inch I e. t but too to offer d s monoci Underste ches pres 15 inch I y un-fore ence row	er usable roost for DBH within 100 DBH within 1000 cluttered to allow rinking resource alture, area autory growth cluttent. Understory DBH frequent. Votels Few matures. Little connections	eatures (cracks, 00 feet of foresto) feet of forestood ow many bats to e throughout the community qualities and restrictly clutter dominuter trees present tion to adjacent wooded stream	ed areas. I areas. I drink eas ne majority fies as a 1: cts flying/ ant but no	sily or simular of the sure poor). If oraging of ubiquito reefalls allowered to offereas.	numer. Fl ous. Trees ow for fre her areas	yways to s greater t equent sm of trees.	resources than 15" I	ОВН
Roost 2. Mod 3. Opti Water 2. Mod openin 3. Opti availab Forest 1. Poor 2. Mod may be 3. Opti gaps th Land C 2. Mar 3. Opti	habitat: 1. Poor: No or few snags >= 5" I derate: Snags with sloughing bark or other timal: Snags with sloughing bark or other Resources: 1. Poor: bat drinking resource derate: Ephemeral or intermittent streams ags or canopy gaps allow bats easy access timal: Streams or ponds (including road ruble.  Structure: (if hardwoods are absent or near: Habitat even aged and young. Trees smalerate: some diversity in age of trees in the epresent but rare.  imal: Mature forest. Diverse age classes on that facilitate bat foraging.  Cover: 1. Poor: Square kilometer surrounceginal: Trees present in the form of small was a street of the small.	DBH with ser roost features not preson ponded to the reson this present aller than the stand. To the trees present ding site p woodlots a	sloughing bar ures present res present > sent at the sit areas present urce. It that appear at or if stand if 5 inch DBH. rees 5 to 15 in sent. Trees >	ck or other 5-15 inch I 5 inch I e. t but too to offer d s monoci Underste ches pres 15 inch I y un-fore ence row	er usable roost for DBH within 100 DBH within 1000 cluttered to allow rinking resource alture, area autory growth cluttent. Understory DBH frequent. Votels Few matures. Little connections	eatures (cracks, 00 feet of forests of feet of forests of feet of forests ow many bats to e throughout the omatically qualitiered and restrictly clutter dominuter of feet of	ed areas. I areas. I drink eas the majority fies as a 1: cts flying/ ant but no ght and tr the not conne forested a forested a forested a forested a	of the sur y of the sur poor). foraging of ubiquito reefalls allo ected to of areas. w, or other	nus. Trees ow for fre her areas	yways to s greater t equent sm of trees.	resources than 15" I	ОВН

Mist Netting Data Form Site No. Project No./Name\_50 Emerson west Date Small woodlot South of road Site Location State Off Time Up 20 Time Down 020 | 8 W/N -85.02 78 Zone Datum M County GENECOL Lat/Lon; UTM: N/E 41,15308 Zone \_\_\_ Datum\_NAD83 Observers Freq. Moon Phase 98 % Height Band# Time Species FA (mm) Net WDI G/H/B/T (Wax) / Wane Age Sex Repr. (m) Type\_ Rise Set EPFU 2257 0615 48.5 15.75 4.0 0 Sun 210 48 3.5 Moon 0506 2252 EPFU 47 2.0 0 5 2308 LABO 2.0 \_ Temp (F) Sky Wind No. Bats 2332 EPFU 6 7 0 8 3 0 4 720 9 3 2201 0 10 0 11 0101 0 0 12 0201 159 05 13 14 15 16 Sky Code 17 Clear 0 18 Few Clouds 1 19 Partly Cloudy 2 20 3 Cloudy or overcast 21 Fog or smoke 4 22 5 Drizzle or light rain 23 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 Calm: <1 mph 1 Light air: 1-3 mph 28 Light breeze: 4-6 mph 2 29 Gentle breeze: 7-10 mph 3 Moderate breeze: 11-16 mph Acoustic Survey: Unit type\_ Unit# Date Start time Stop time\_ Date Start time\_\_\_\_\_ Stop time\_ Please Return to: P.O. Box 73, Paint Lick, KY, 40461. Date Start time Stop time\_ Weatherproofing\_ Coordinates (859) 925-9012 Comments: p. 2

Mist Netting Data Form Sheet\_ Project No./Name\_50 west Date 12- July Site No. model of south of road Site Location Lat/Lon; UTM: N/E\_41.15 3.08 Time Up 2 06 Time Down 0206 Datum NAD8 & Observers Freq. Moon Phase 56 % Height Band# Mass WDI G/H/B/T Wax) / Wane Species Sex Repr. FA (mm) Net Time Age (g) (m) Type\_ 2210 EDFU 0 Rise Set NK 0 14.0 0610 1106 Sun 0 ,0 Moon 3 4 5 Wind Time Temp (F) Sky No. Bats 6 2106 81.0 7 2206 2 80.0 8 9 2306 0 0006 10 0106 76 2 0 11 2 0206 12 13 14 15 Sky Code 16 Clear 0 17 1 Few Clouds 18 2 Partly Cloudy 19 Cloudy or overcast 3 20 4 Fog or smoke 21 5 Drizzle or light rain 22 Heavy rain - thunder storm 23 24 **Beaufort Wind Scale** 25 Calm: <1 mph 26 0 1 Light air: 1-3 mph 27 2 Light breeze: 4-6 mph 28 Gentle breeze: 7-10 mph 3 29 4 Moderate breeze: 11-16 mph 30 Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t. virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus Please Return to: borealis (LABO); Lasiurus cinereus (LACI); Lasiurus seminolus (LASE); Lasionycteris noctivagans (LANO); Myotis austroriparius P.O. Box 73, Paint Lick, KY, 40461. (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) (859) 925-9012 Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR p. 1

Lat/Lon; l	111 1529		_		Project No./Name 50 / E			West			Date			
	UTM: N/E 41.153%	W/N83						Observers_	R.SHi					_
Datum:	County Sene	a	State_C		uad w				C Jac					
Site Diagr	ram:		1		eight I					Domin	ant Veg			
	1 00	1/1	0		(m)	(m)	Dates		nbra		4. A sa			
	at when	wood	/		7.0	9	7-127-18	2. O. Vi		Ia	5. Ta	merico	ina	
- (	6/0-0/C	100	1		-	6	7-12 7-18	3. C. ovata 6.						
	Cie	1/	-	C 5		4	7-17 7-18	-		Not C	ot by II	hitat		
	*			7			7-12 7-18	Habitat	A	B	et by Ha	D	E	F
Eton	-nship (2150			F	12 1	6	7-12	River	A	ь	-	D	E	r
Si-	1000 XX	3	-	Т	-	_		Stream	-			-		
TI TEN	*BTR E		-	-	_	_		Pond						
0	7 0			Site Ph	otograj	nhe		Corridor	1/	1/	1	1 /		-
0	X		51	Camera	a: Rob	S Car	nesa	Cave	-					
4/	Ir. A.X	130		Photo I		,		Mine				-		
ante.	C Sen sto		150		100-07	138		Forest	. /					
7	0.000	V	0	3 100-0735				Gap						
	11.1	11	1	L 100	0-073	7		Other					wood	
7	K-trail			0 100-0744								10+		
	11			E 100	2-0739	-740							edop	
1 3.	. Moderate: Snags with slough . Optimal: Snags with sloughing	ig bark or other roo	st featur	es prese	ent >15 i	5 inch L	JBH within 1000	) feet of fores	ted areas.					
2. op 3. 2 av Fc 1.	Vater Resources: 1. Poor: bat of Moderate: Ephemeral or interpenings or canopy gaps allow be Optimal: Streams or ponds (invailable.  Orest Structure: (if hardwoods a Poor: Habitat even aged and you Moderate: some diversity in a	mittent streams or pats easy access to acluding road ruts) are absent or near young. Trees small	ponded the resou present ly absent er than 5	areas processing that appropriate or if state inch DI	ne site.  resent but  pear to co  and is m  BH. Un	ut too cl offer dri nonocul nderstor	luttered to allow inking resource t ture, area autom y growth clutter	many bats to throughout the natically qual red and restrict	o drink eas: he majority ifies as a 1: icts flying/	of the sun poor). foraging	nmer. Fly	ways to	resources	
2. op 3. av FC 1. 2. m 3. ga La 2. 3.	Moderate: Ephemeral or inter penings or canopy gaps allow b Optimal: Streams or ponds (in vailable. orest Structure: (if hardwoods	mittent streams or pats easy access to acluding road ruts) are absent or near roung. Trees small ge of trees in the stree age classes of the cometer surrounding form of small wo sted. Wooded stan	ponded the resour present ly absent er than 5 and. Tre rees present g site prodlots ar	or if sta inch Dl es 5 to 1 ent. Tre	ne site. The site is resent to common to commo	ut too cl offer dri nonocul nderstor es prese inch DE	luttered to allow inking resource ture, area autom y growth clutter nt. Understory BH frequent. Va ed. Few mature Little connection	many bats to throughout to natically qual red and restrictutter dominarying tree he trees present on to adjacen	t not conne t forested a n, fence row	of the sun poor). foraging t ubiquitou eefalls allo cted to oth reas.	nmer. Fly us. Trees w for free ner areas o	greater t	resources than 15" E	вн
2. op 3. av Ec 1. 2. m 3. ga La 2. 3.	Moderate: Ephemeral or interpenings or canopy gaps allow le Optimal: Streams or ponds (invailable.  Orest Structure: (if hardwoods Poor: Habitat even aged and ye Moderate: some diversity in a may be present but rare.  Optimal: Mature forest. Dive aps that facilitate bat foraging.  and Cover: 1. Poor: Square kil Marginal: Trees present in the Optimal: Area is largely forestal Habitat Score (Should be be	mittent streams or pats easy access to acluding road ruts) are absent or near roung. Trees small ge of trees in the stree age classes of the cometer surrounding form of small wo sted. Wooded stan	ponded the resour present ly absent er than 5 and. Tre rees present g site prodlots ar	or if sta inch Dl es 5 to 1 ent. Tre	ne site. The site is resent to common to commo	ut too cl offer dri nonocul nderstor es prese inch DE	luttered to allow inking resource ture, area autom y growth clutter nt. Understory BH frequent. Va ed. Few mature Little connection	throughout the natically qual red and restrictutter dominarying tree here trees present on to adjacent coded stream	t not connet forested and fence row	of the sun poor). foraging t ubiquitou eefalls allo cted to oth reas.	nmer. Fly  is. Trees  w for free  ner areas o  wooded o	greater t	resources than 15" E	вн

Mist Netting Data Form Project No./Name\_501.01 | Emerson West Date\_15 July 2016 Site Location Open woodlot between agfields County <u>Seneca</u> State\_ Lat/Lon; UTM: NE 41, 15697 State <u>OH</u> Time Up <u>2/03</u> Time Down <u>0203</u> 7 <u>W/N</u> -83.02715 Zone Datum *N* Zone \_\_\_\_ Datum NAD 83 Observers G. Janos, K. De Beck Band# Height Mass Moon Phase 80 % Wax / Wane Time Species Net WDI G/H/B/T Age Sex Repr. FA (mm) (g) (m) Type\_ Set Rise 2 0612 2103 Sun 0254 3 Moon 4 5 Wind No. Bats Temp (F) Sky 6 7 0 2100 8 2200 0 9 0 2300 10 0 0 11 68 0 12 13 14 15 Sky Code 16 17 Clear 0 18 1 Few Clouds Partly Cloudy 19 2 Cloudy or overcast 20 Fog or smoke 21 Drizzle or light rain 22 Heavy rain - thunder storm 23 24 Beaufort Wind Scale 25 Calm: <1 mph 26 Light air: 1-3 mph 27 Light breeze: 4-6 mph 28 Gentle breeze: 7-10 mph 29 Moderate breeze: 11-16 mph Unit type\_\_\_\_ Acoustic Survey: Unit # Start time\_ Stop time Please Return to: Weatherproofing Coordinates P.O. Box 73, Paint Lick, KY, 40461. Comments . (859) 925-9012 p. 2

Mist Netting Data Form Site No.\_ Project No./Name 501.01 / Emerson West Site Location Open woodlot between ag field State OH Time Down 0202 County Seneca Time Up 2/02 Lat/Lon; UTM: N/E 41. 15697 Datum NAD 83 Observers G. Janos, W/N -83.027/5 Freq. Mass Height Band# WDI G/H/B/T Moon Phase/00 % Wax / Wane Time Species Sex FA (mm) Repr. (g) (m) Type\_ 2240 Rise Set 5 ANDO Sun 06/3 2102 1903 0418 3 Moon 4 5 Temp (F) Sky Wind No. Bats Time 6 7 8 3 2200 0 3 9 0 2300 0 10 2 0 11 2 12 13 14 15 16 Sky Code 17 0 Clear 18 Few Clouds 1 19 2 Partly Cloudy 20 3 Cloudy or overcast 21 4 Fog or smoke 22 Drizzle or light rain 5 23 6 Heavy rain - thunder storm 24 25 **Beaufort Wind Scale** 26 0 Calm: <1 mph 27 1 Light air: 1-3 mph 28 2 Light breeze: 4-6 mph 29 3 Gentle breeze: 7-10 mph 30 Moderate breeze: 11-16 mph Species Abbreviations: Corynorhinus rafinesquii (CORA); Corynorhinus t, virginianus (COVI); Eptesicus fuscus (EPFU); Lasiurus Please Return to: 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 P.O. Box 73, Paint Lick, KY, 40461. (MYSO); Nycticeius humeralis (NYHU); Perimyotis subflavus (PESU); Tadarida brasiliensis (TABR) (859) 925-9012 Other Abbreviations: Male: M; Female: F; Pregnant: P; Lactating: L; Post Lactating: PL; Scrotal: S; Non Repro: NR p. 1

Mist Net Site Habitat	Sheet Site No. 4	Project	t No./Nam	501.011 En	nerson	West			Date /3	Jul	y 201
Lat/Lon; UTM: N/E 4/			Zor	e	Observers_	G. Jano	s, K. De	Beck			_
Datum: NAD 83 Co	ounty Seneca Si		Quad_Wo		-		D.				
Site Diagram:	Soybean Field		Height Ler	-	1.5	and Hr		nant Veg	getation		
		Net	2 2 - 3	n) Dates	1. Fagus (	grandito	ria.	_4 5.			
	17		5.2	7/15, 7/17	3. Carya		m	6.			
			). 0	1110,1111	S.Carya	14010		0			
	11		5.2 6	7/5.///			Net !	Set by H	abitat		
1	26.	E	70 9	7/15 7/17	Habitat	A	В	C	D	E	F
1 E	184	F	1.0	1/10,1/11	River						
18 1	1	1			Stream						
1					Pond	100	100			1	
X 1/		Site Pl	hotograph	S	Corridor	/	1		1		
To to the total of				is phone	Cave						
0 1		Photo	Log:	,	Mine					F-71	
5 1	orest JAL				Forest					1	
3	HAH				Gap						
	1				Other					- 4	-
								1	- 4		
3. Optimal: Snags Water Resources: 2. Moderate: Ephe openings or canop 3. Optimal: Stream available.	s with sloughing bark or other roos with sloughing bark or other roos 1. Poor: bat drinking resources n meral or intermittent streams or p y gaps allow bats easy access to the or ponds (including road ruts) p	features present at to onded areas peresource. resent that ap	sent >15 in the site. present but ppear to off	th DBH within 1000 too cluttered to allo er drinking resource	feet of foreste w many bats t e throughout t	d areas. o drink ea he majorit	sily or sim				
Poor: Habitat ev     Moderate: some may be present bu	e forest. Diverse age classes of tre	than 5 inch I nd. Trees 5 to	DBH. Und o 15 inches	erstory growth clutt present, Understor	ered and restr y clutter domi	icts flying nant but n	/foraging ot ubiquite				
2 Land Cover: 1. Po 2. Marginal: Trees	or: Square kilometer surrounding s present in the form of small woo is largely forested. Wooded stand	flots and woo	oded fence	rows. Little connec	tion to adjacer	nt forested	areas.				
7 Total Habitat Score	(Should be between 4 & 12)				Please retu	rn to:				(2)	1
Comments:					P.O. Box 73	, Paint Lie	k, KY. 404	61			
	ents.				859-925-90				COP	PERI	EAL

This foregoing document was electronically filed with the Public Utilities

**Commission of Ohio Docketing Information System on** 

12/26/2018 2:54:19 PM

in

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

Summary: Application Exhibit J Part 15 of 33 electronically filed by Teresa Orahood on behalf of Dylan F. Borchers