

FILE

ORIGINAL



July 22, 2008

06-1142-GA-BIN

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Room 1A
Washington, DC 20426

RE: Docket No. CP07-208-000
Rockies Express Pipeline LLC, REX-East Project
Supplemental Information

Ms. Bose:

On May 30, 2008, the Federal Energy Regulatory Commission ("FERC" or "Commission"), pursuant to Section 7(c) of the Natural Gas Act and Part 157 of the Commission's regulations, issued Rockies Express Pipeline LLC ("Rockies Express") a certificate of public convenience and necessity to construct and operate the REX-East project ("May 30 Order" or "Order").¹ On June 2, 2008, Rockies Express, pursuant to Section 157.20(a) of the Commission's Regulations, 18 C.F.R. § 157.20(a), notified the Commission that it accepted the Commission's Order.

Rockies Express hereby files supplemental information for the REX-East Project consistent with the requirements of Environmental Condition No. 89 of the May 30 Order. Enclosed for filing are the following items:

- agency correspondence related to biological species survey report submittals (Attachment A); and
- the biological species survey report entitled *Surveys For The Indiana Bat (Myotis Sodalis) Within The Proposed Rex-East Pipeline Corridor In Ohio; Addendum To 2007 Report.*

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¹ Rockies Express Pipeline LLC, 123 FERC ¶ 61,234 (2008)

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Rockies Express is filing an original and seven (7) copies of all Public Information. In addition, Rockies Express is providing complete copies of this filing directly to the FERC Project Manager. If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Shippen Howe', is written over a horizontal line.

Shippen Howe
Van Ness Feldman, P.C.
1050 Thomas Jefferson Street, NW
Washington, DC 20007

Attorney for
Rockies Express Pipeline LLC

Attachments

cc: Laura Turner, FERC
All Parties

**Rockies Express Pipeline LLC
REX-East Project
CP07-208**

ATTACHMENT A

Public



July 18, 2008

Angela Boyer
U.S. Fish and Wildlife Service
6950 Americana Parkway, Suite H
Reynoldsburg, OH 43068

Re: Rockies Express Pipeline - East Project
Final Survey Report for the Indiana Bat (East of Milepost 444.0)

Dear Ms. Boyer,

As you are aware from past consultation, Rockies Express Pipeline LLC (Rockies Express) is proposing to construct the Rockies Express Pipeline – East Project (REX-East), a 42-inch-diameter natural gas pipeline, from Missouri to Ohio. The purpose of this letter is to present the attached report titled "Surveys for the Indiana Bat (*Myotis sodalis*) within the Proposed REX-East Pipeline Corridor in Ohio; Addendum to 2007 Report" dated July 16, 2008. This is an addendum to last year's report dated September 19, 2007. This report includes a summary of all Indiana bat surveys that were conducted east of milepost (MP) 444.0 in 2008.

Indiana bat survey and monitoring activities in Ohio east of MP 444.0 in 2008 included mist net surveys at 20 sites within 8 Indiana bat habitat units. The following table summarizes Indiana bat survey activities conducted in Ohio between June 14 and July 3, 2008. Four Indiana bats were captured during surveys, including 1 pregnant female, 1 non-reproductive female, and 2 non-reproductive males. Both female bats were fitted with radio transmitters and tracked to roosts north of the REX-East pipeline right-of-way. Radio telemetry of captured male Indiana bats was not required under the approved study plan.

Rockies Express Pipeline – East Project			
Indiana Bat Survey Activities Conducted in Ohio East of MP 444.0 in 2008			
County, State	Indiana Bat Habitat Unit	Milepost Range	Survey Results
Clinton, OH	TEH-OH-10.9	486.7 – 487.1	One mist net site was surveyed. Two female Indiana bats were captured and each was tracked to a different roost. Both roosts are off of the right-of-way, and the closest is approximately 1,200 feet north. No emergence counts were conducted due to limited property access.
Fayette / Pickaway, Ohio	TEH-OH-14.5	489.3 – 500.8	Two mist net sites were surveyed. One male Indiana bat was captured and was not tracked.
Muskingum, OH	TEH-OH-25.0	577.5 – 578.9	Three mist net sites were surveyed. No Indiana bats were captured.
Muskingum, OH	TEH-OH-27.0	580.2 – 583.5	Five mist net sites were surveyed. No Indiana bats were captured.
Muskingum, OH	TEH-OH-28.0	588.9 – 589.2	Three mist net sites were surveyed. No Indiana bats were captured.
Guernsey, OH	TEH-OH-31.0	601.0 – 601.2	One mist net site was surveyed. No Indiana bats were captured.
Noble, OH	TEH-OH-32.7	614.1 – 614.3	One mist net site was surveyed. No Indiana bats were captured.
Salmon, OH	TEH-OH-33.0	RR 2010 MP 619.8 + 0.6 – RR 2010 MP 619.8 + 5.6	(Barnesville Route) Four mist net sites were surveyed. One male Indiana bat was captured and was not tracked.

Ms. Angela Boyer
July 18, 2008
Page 2 of 2

As stipulated in the Federal Energy Regulatory Commission's (FERC's) Biological Assessment (BA) for the REX-East Project, dated March 25, 2008 and the FWS's concurrence letter to the FERC, dated April 24, 2008, no further action is necessary at habitat units TEH-OH-25.0, TEH-OH-27.0, TEH-OH-28.0, TEH-OH-31.0, or TEH-OH-32.7 due to the absence of Indiana bats. In addition, no further action is necessary at habitat unit TEH-OH-10.9 because newly documented roosts are more than 300 feet away from the project workspace. Finally, no further action is necessary at habitat units TEH-OH-14.5 or TEH-OH-33.0 because bats captured within those habitat units were males whose tracking was not required under the approved study plan.

Rockies Express believes the completion of surveys as described above will conclude all measures necessary to avoid adversely impacting the Indiana bat in Ohio. If the project changes or additional measures relating to the Indiana bat are necessary, Rockies Express will contact you. If you have any questions or comments, please contact me at 614-866-7048 or by email at jimt@caprockenvironmental.com.

Thank you for your assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carly Lapin", with the word "for" written in a smaller, simpler font directly beneath it.

Jim Thompson
Environmental Contractor
for Rockies Express

Enclosed: Surveys for the Indiana Bat (*Myotis sodalis*) within the Proposed REX-East Pipeline Corridor in Ohio; Addendum to 2007 Report

cc: Charlie Bertram, Environmental Contractor for Rockies Express Pipeline
Carly Lapin, NRG
Jeff Thommes, NRG



ORIGINAL

PN: 1786.002-001

July 16, 2008

**SURVEYS FOR THE INDIANA BAT (*MYOTIS SODALIS*) WITHIN THE
PROPOSED REX-EAST PIPELINE CORRIDOR IN OHIO;
ADDENDUM TO 2007 REPORT**

Prepared for:
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- Figure 2. Capture location of bats 172.225 and 172.177, and locations of roosts used by the bats June 14 through June 19, 2008 in Clinton County, Ohio.
- Figure 3. Capture location of male Indiana bat in Fayette County, Ohio, June 20, 2008.
- Figure 4. Capture location of male Indiana bat in Belmont County, Ohio, June 25, 2008.

APPENDICES

- Appendix A. USFWS Indiana Bat Survey Guidelines
- Appendix B. Mist Net Survey Data Sheets
- Appendix C. Photographs of Roost Used by Indiana Bat 172.177

EXECUTIVE SUMMARY

BHE Environmental, Inc. (BHE) was contracted by Natural Resource Group, LLC (NRG) on behalf of Rockies Express Pipeline LLC to conduct Indiana bat monitoring and surveys at sites along the Rockies Express Pipeline-East (REX-East) project route in Ohio, east of milepost 444, generally from northwestern Clinton County to the eastern extent of the route in Ohio in northeastern Monroe County. Activities included conducting mist net surveys at 20 sites and radio tracking of Indiana bats captured during surveys. These activities were conducted based upon guidance provided by the USFWS, Reynoldsburg, Ohio Field Office, and following study plans drafted by BHE and approved by USFWS. Between June 14 and July 3, 2008, BHE conducted mist net surveys for Indiana bats at 20 sites in Ohio. One hundred and twenty-six bats were captured during the survey, including four Indiana bats. Two of the bats were males and were not tracked; two were females that were tracked to roosts north of the REX-East pipeline right-of-way.

1.0 INTRODUCTION

In spring 2006, Natural Resource Group, LLC (NRG) contracted BHE Environmental, Inc. (BHE) to conduct mist net surveys to assess the presence of Indiana bats (*Myotis sodalis*) within the proposed REX-East pipeline route crossing parts of Missouri, Illinois, Indiana, and Ohio. BHE worked with NRG to draft a series of study plans addressing proposed Indiana bat surveys on the REX-East pipeline route within each state, and these study plans were submitted to state Field Offices of the U.S. Fish and Wildlife Service (USFWS) for their comment and concurrence. In 2007, 161 sites along the pipeline corridor route were surveyed, resulting in the capture of 26 Indiana bats. Of those, 14 Indiana bats were tracked using radio telemetry, and 11 roost trees were located. Survey and radio telemetry methods were based upon guidance provided by the USFWS. The methods and results of the 2007 mist net survey were provided in the report entitled *Mist Net Survey for the Indiana Bat within the Proposed REX-East Pipeline Corridor in Four States*, dated September 19, 2007 (BHE 2007). In 2008, NRG requested that BHE conduct follow-up surveys along the REX-East pipeline corridor, including mist net surveys along new alignments.

This report documents Indiana bat survey and monitoring activities conducted in Ohio east of pipeline milepost (MP) 444, generally from northwestern Clinton County to the eastern extent of the route in Ohio in northeastern Monroe County, in 2008. All background information, description of methods, and results contained in the 2007 report are hereby incorporated by reference.

2.0 METHODS

Eight Habitat Units were identified for mist netting in 2008 (Table 1). Mist net site selection and methods followed Indiana Bat Recovery Plan guidelines (USFWS 2007; Appendix A) and a study plan approved by the USFWS Field Office in Reynoldsburg, Ohio. Equipment and setup followed Gardner et al. (1989). Timing of the survey and conditions in the field were appropriate for investigating presence of Indiana bats during the maternity season. A detailed description of mist net and radio telemetry methods may be found in *Mist Net Survey for the Indiana Bat within the Proposed REX-East Pipeline Corridor in Four States* dated September 19, 2007 (BHE 2007).

3.0 RESULTS AND DISCUSSION

3.1 MIST NETTING

Twenty mist net sites were surveyed within eight Habitat Units in Ohio in 2008 (Figure 1, Table 1). Habitat Units were located along the REX-East pipeline corridor in Clinton, Fayette, Pickaway, Muskingum, Guernsey, Noble, and Belmont counties, Ohio.

Table 1. Habitat Units and mist net sites surveyed on the REX-East pipeline corridor east of MP 444 in Ohio in 2008.

County	Habitat Unit	Mileposts	Mist Net Site ID
Clinton	TEH-OH-10.9	466.7-467.1	TEH-MN-OH-466A
Fayette & Pickaway	TEH-OH-14.5	499.3-500.9	TEH-MN-OH-499A
			TEH-MN-OH-500A
			TEH-MN-OH-577A
Muskingum	TEH-OH-25.0	577.5-578.9	TEH-MN-OH-578A
			TEH-MN-OH-578B
			TEH-MN-OH-580A
			TEH-MN-OH-581A
Muskingum	TEH-OH-27.0	580.2-583.5	TEH-MN-OH-581B
			TEH-MN-OH-582A
			TEH-MN-OH-583A
			TEH-MN-OH-586A
Muskingum	TEH-OH-28.0	586.9-588.2	TEH-MN-OH-587A
			TEH-MN-OH-587B
			TEH-MN-OH-600A
Guernsey	TEH-OH-31.0	601.0-601.2	TEH-MN-OH-600A
Noble	TEH-OH-32.7	614.1-614.3	TEH-MN-OH-614A
			TEH-MN-OH-BR-000A
Belmont	TEH-OH-33.0 (Barnesville Reroute)	BR 0.6-BR 5.6	TEH-MN-OH-BR-001A
			TEH-MN-OH-BR-003A
			TEH-MN-OH-BR-005A

3.1.1 Habitat Unit TEH-OH-10.9

Habitat Unit TEH-OH-10.9 is located in Clinton County, Ohio. The Habitat Unit stretches from MP 466.7 to MP 467.1, approximately 0.4 mile (0.64 kilometer) in length. Following guidelines established in the Indiana Bat Draft Recovery Plan, one mist net site was established within the Unit. A description of the site follows; sketches and detailed descriptions of all sites are provided in Appendix B.

TEH-MN-OH-466A was surveyed on June 14, 15, and 16, 2008. Both mist nets were placed over ATV trails near a pond within a woodlot. Dominant canopy trees at the mist net site included black walnut (*Juglans nigra*), American sycamore (*Platanus occidentalis*), and hickory (*Carya* sp.). The dominant understory species were black cherry (*Prunus serotina*), sugar maple (*Acer saccharum*), and elm (*Ulmus* sp.).

3.1.2 Habitat Unit TEH-OH-14.5

Habitat Unit TEH-OH-14.5 is located in Fayette and Pickaway counties, Ohio. The Habitat Unit stretches from MP 499.3 to MP 500.9, approximately 1.6 miles (2.5 kilometers) in length, and is partially forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, two mist net sites were established within the Unit. Descriptions of the sites follow; sketches and detailed descriptions of all sites are provided in Appendix B.

TEH-MN-OH-499A was surveyed on June 20 and 21, 2008. Both mist nets were placed over gaps in a tree line, surrounded by agricultural field. Dominant canopy trees at the mist net site included black walnut, cottonwood (*Populus deltoides*), and white ash (*Fraxinus americana*). The dominant understory species were American plum (*Prunus americana*), and autumn olive (*Elaeagnus umbellata*).

TEH-MN-OH-500A was surveyed on June 18 and 19, 2008. Both nets were placed across a horseback riding trail in a woodlot. Dominant tree canopy species at the site were white ash, slippery elm (*Ulmus rubra*), and black oak (*Quercus velutina*). Dominant understory species included autumn olive, silky dogwood (*Cornus amomum*), and hawthorn (*Crataegus* sp.).

3.1.3 Habitat Unit TEH-OH-25.0

Habitat Unit TEH-OH-25.0 is located in Muskingum County, Ohio. The Habitat Unit stretches from MP 577.5 to MP 578.9, approximately 1.4 miles (2.25 kilometers) in length, and is entirely forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, three mist net sites were established within the Unit. Descriptions of the sites follow; sketches and detailed descriptions of all sites are provided in Appendix B.

TEH-MN-OH-577A was surveyed on June 16 and 17, 2008. Both nets were placed across gravel driveways through the woodlot. Dominant tree canopy species at the mist net site included black locust (*Robinia pseudoacacia*), black walnut, and tulip poplar (*Liriodendron tulipifera*). Dominant understory species included sugar maple, box elder (*Acer negundo*), and flowering dogwood (*Cornus florida*).

TEH-MN-OH-578A was surveyed on June 16 and 17, 2008. Both nets were placed across a dirt logging road through the woodlot. Dominant tree canopy species at the site included sugar maple, red maple (*Acer rubra*), and shagbark hickory (*Carya ovata*). Dominant understory species included sugar maple, white oak (*Quercus alba*), and tulip poplar.

TEH-MN-OH-578B was surveyed on June 18 and 19, 2008. Both nets were placed across dirt logging roads through the woodlot. Dominant tree canopy species at the site included tulip poplar, post oak (*Quercus stellata*), and white oak. Dominant understory species included sassafras (*Sassafras albidum*), tulip poplar, and alternate-leaved dogwood (*Cornus alterniflora*).

3.1.4 Habitat Unit TEH-OH-27.0

Habitat Unit TEH-OH-27.0 is located in Muskingum County, Ohio. The Habitat Unit stretches from MP 580.2 to MP 583.5, approximately 3.3 miles (5.3 kilometers) in length, and is mostly forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, five mist net sites were established within the Unit. Descriptions of the sites follow; sketches and detailed descriptions of all sites are provided in Appendix B.

TEH-MN-OH-580A was surveyed on June 18 and 19, 2008. One net was placed in an opening in the woodlot and the other net was placed across a grass lane through the woodlot. Dominant tree canopy species at the mist net site included honey locust (*Gleditsia triacanthos*), sycamore, and black walnut. Dominant understory species included sassafras, honey locust, and hackberry (*Celtis occidentalis*).

TEH-MN-OH-581A was surveyed on June 18 and 19, 2008. One net was placed across a dirt driveway through the woodlot and the other net was placed across a grass gas line right-of-way through the woodlot. Dominant tree canopy species at the mist net site included red oak, black cherry, and shagbark hickory. Dominant understory species included sugar maple, black walnut, and black cherry.

TEH-MN-OH-581B was surveyed on June 20 and 22, 2008. Both nets were placed across a maintained right-of-way through the woodlot. Dominant tree canopy species at the mist net site included red oak, white oak, and white pine (*Pinus strobus*). Dominant understory species included sassafras, sugar maple, and tulip poplar.

TEH-MN-OH-582A was surveyed on June 20 and 22, 2008. Both nets were placed across Buffalo Creek. Dominant tree canopy species at the mist net site included sycamore, black walnut, and black oak. Dominant understory species included box elder, sugar maple, and Ohio buckeye (*Aesculus glabra*).

TEH-MN-OH-583A was surveyed on June 20 and 25, 2008. One net was placed in an opening in the woodlot and the other net was placed across Williams Fork. Dominant tree canopy species at the mist net site included green ash (*Fraxinus pennsylvanica*), sycamore, and honey locust. Dominant understory species included box elder, honey locust, and Ohio buckeye.

3.1.5 Habitat Unit TEH-OH-28.0

Habitat Unit TEH-OH-28.0 is located in Muskingum County, Ohio. The Habitat Unit stretches from MP 586.9 to MP 588.2, approximately 1.3 miles (2 kilometers) in length, and is entirely forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, three mist net sites were established within the Unit. Descriptions of the sites follow; sketches and detailed descriptions of all sites are provided in Appendix B.

TEH-MN-OH-586A was surveyed on June 23 and 24, 2008. One net was placed across a maintained grass field among scattered trees and the other net was placed across a gravel access road. Dominant tree canopy species at the mist net site included honey locust, choke cherry (*Prunus virginiana*), and red oak. Dominant understory species included honey locust, sassafras, and pignut hickory (*Carya glabra*).

TEH-MN-OH-587A was surveyed on June 23 and 24, 2008. Both nets were placed across a small creek through the woodlot. Dominant tree canopy species at the mist net site included sycamore, honey locust, and sugar maple. Dominant understory species included honey locust, Osage orange (*Maclura pomifera*), and sugar maple.

TEH-MN-OH-587B was surveyed on June 23 and 24, 2008. One net was placed across a temporary access road through the woodlot and the other net was placed across a logging road through the woodlot. Dominant tree canopy species at the mist net site included black walnut, tulip poplar, and honey locust. Dominant understory species included Osage orange, hazel alder (*Alnus serrulata*), and cherry silverberry (*Elaeagnus multiflora*).

3.1.6 Habitat Unit TEH-OH-31.0

Habitat Unit TEH-OH-31.0 is located in Guernsey County, Ohio. The Habitat Unit stretches from MP 601.0 to MP 601.2 approximately 0.1 mile (0.16 kilometer) in length, and is mostly

forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, one mist net site was established within the Unit. A description of the site follows; a sketch and detailed description is provided in Appendix B.

TEH-MN-OH-600A was surveyed on June 26, 27, and 28, 2008. One net was placed in along a tree line and across an opening in the woodlot and the other net was placed across an ATV trail through the woodlot. Dominant tree canopy species at the mist net site included black walnut, shagbark hickory, and white oak. Dominant understory species included redbud (*Cercis canadensis*), white ash, and black cherry.

3.1.7 Habitat Unit TEH-OH-32.7

Habitat Unit TEH-OH-32.7 is located in Noble County, Ohio. The Habitat Unit stretches from MP 614.1 to MP 614.3 approximately 0.2 mile (0.32 kilometer) in length, and is mostly forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, one mist net site was established within the Unit. A description of the site follows; a sketch and detailed description is provided in Appendix B.

TEH-MN-OH-614A was surveyed on July 1 and 2, 2008. Both nets were placed along a tree line extending into an open field. Dominant tree canopy species at the mist net site included black locust, tree-of-heaven (*Ailanthus altissima*), and black cherry. Dominant understory species included flowering dogwood and black raspberry (*Rubus occidentalis*).

3.1.8 Habitat Unit TEH-OH-33.0

Habitat Unit TEH-OH-33.0, also known as the Barnesville Reroute, is located in Belmont County, Ohio. The Habitat Unit stretches from MP BR 0.6 to MP BR 5.6, approximately 5 miles (8 kilometers) in length, and approximately half is forested. Following guidelines established in the Indiana Bat Draft Recovery Plan, four mist net sites were established within the Unit. Descriptions of the sites follow; sketches and detailed descriptions of all sites are provided in Appendix B.

TEH-MN-OH-BR-000A was surveyed on June 25, 26, and 27, 2008. Both nets were placed within the woodlot. Dominant tree canopy species at the mist net site included black cherry, sugar maple, and tulip poplar. Dominant understory species included sugar maple, sassafras, and hawthorn.

TEH-MN-OH-BR-001A was surveyed on June 25, 26, and 27, 2008. Both nets were placed across a dirt road through the woodlot. Dominant tree canopy species at the mist net site included black walnut, honey locust, and shingle oak (*Quercus imbricaria*). Dominant understory species included black walnut, honey locust, and crabapple (*Malus sylvestris*).

TEH-MN-OH-BR-003A was surveyed on June 29 and 30, 2008. Both nets were placed grass lane through the woodlot. Dominant tree canopy species at the mist net site included sugar maple, white oak, and black walnut. Dominant understory species included sugar maple, hawthorn, and white oak.

TEH-MN-OH-BR-005A was surveyed on June 29 and 30, 2008. Both nets were placed across a farm lane through the woodlot. Dominant tree canopy species at the mist net site included

white oak, shagbark hickory, and red oak. Dominant understory species included Ohio buckeye, sugar maple, and hawthorn.

3.1.9 Bat Captures

A total of 126 bats, representing seven species, were captured from the 20 mist net sites, including four Indiana bats (Table 2, Table 3; Appendix B):

Little brown bat (*M. lucifugus*, n=44; 35% of total capture)

Red bat (*Lasiurus borealis*, n=28; 22% of total capture)

Big brown bat (*Eptesicus fuscus*, n=22; 17% of total capture)

Northern long-eared bat (*Myotis septentrionalis*, n=15, 12% of total capture)

Eastern pipistrelle (*Perimyotis subflavus*, n=12; 10% of total capture)

Indiana bat (*M. sodalis*, n=4; 3% of total capture)

Hoary bat (*L. cinereus*, n=1; <1% of total capture)

Table 2. Indiana bats captured on REX-East pipeline east of MP 444 in Ohio in 2008.

Net Site ID	County	Capture Date, Time	Sex	Reproductive Condition	Band	Transmitter Frequency
TEH-MN-OH-466A	Clinton	June 15, 0010	F	Pregnant	ODNR 12030	172.225
TEH-MN-OH-466A	Clinton	June 16, 0010	F	Nonreproductive	ODNR 12029	172.177
TEH-MN-OH-499A	Fayette	June 20, 2240	M	Nonreproductive	ODNR 12028	N/A
TEH-MN-OH-BR-001A	Belmont	June 27, 2305	M	Nonreproductive	ODNR 12016	N/A

LARGE-FORMAT IMAGES

One or more large-format images (over 8 ½" x 11") go here.
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At least one bat was captured at 17 of the 20 net sites. The greatest number of bats ($n = 25$) was captured at site TEH-MN-OH-581B, and the greatest number of species ($n = 6$) was captured at site TEH-MN-OH-582A. Age class, sex, and reproductive status of the captured bats are shown in Table 3.

Four Indiana bats were captured during the surveys (Table 2). Indiana bats were captured at three out of 20 sites, and captures included one pregnant female, one non-reproductive female, and two nonreproductive males. BHE placed ODNR-supplied metal bands on all four bats (Table 2). The two captured female Indiana bats were fitted with radio transmitters and tracked, as described in Section 3.2 (below). Radio telemetry of captured male Indiana bats was not required under the approved study plan.

Temperatures during mist netting activities ranged from a high of 76° F (24.4° C) to a low of 50° F (10° C) and were within the range recommended by the survey protocol (USFWS 2007; Appendix A). During mist netting, sky conditions ranged from clear to overcast, and mist netting was suspended or postponed on a number of nights due to rain. Moon phases from new to full were observed during the course of the survey. Wind speeds varied but were generally low (1 to 2 miles per hour, or 1.6 to 3.2 kilometers per hour) through the survey.

3.2 RADIO TELEMETRY

Daytime radio telemetry was conducted on two Indiana bats from one mist net site, to locate roost trees. One of the bats was a pregnant female, and one was a nonreproductive female. Description of radio tracking of each bat follows; bats are referred to by the frequency of their radio transmitter.

3.2.1 Bat 172.225

Bat 172.225, a pregnant female, was captured the early morning of June 15 from site TEH-MN-OH-466A in Clinton County, Ohio. The bat was tracked to a roost approximately 1,200 feet north of the REX-East right-of-way (Figure 2). The roost was located on a tract that was inaccessible to BHE biologists, thus the approximate general location of the roost tree was estimated using triangulation. Compass bearings of the signal were taken from multiple locations surrounding the tree and the estimated location of the roost was calculated. Because the roost itself was inaccessible, the tree was not marked and no emergence counts were conducted. Bat 172.225's radio signal was detected from this area on June 15, 16, and 17.

3.2.2 Bat 172.177

Bat 172.177, a nonreproductive female, was captured the early morning of June 17 from site TEH-MN-OH-466A in Clinton County, Ohio. The bat was tracked to a roost approximately 3,250 feet north of the REX-East right-of-way (Figure 2). The roost was found to be a utility pole located on private property, northeast of MP 468, thus the roost was named TEH-RT-OH-468A. Bats were roosting underneath a length of plastic tubing attached to the pole, approximately two feet above the ground. Bat guano was abundant in the tubing and on the ground at the time of the survey. The pole is visible from an adjacent public road (Hiney Road) but is located on private property and thus not accessible to BHE biologists.

Photographs (Appendix C) and a GPS point were taken from the public road, but the pole was not marked and no emergence counts were conducted. Bat 172.177's radio signal was detected from this post on June 17, 18, and 19.

Two male Indiana bats were captured at other sites on the REX-East pipeline corridor (Figure 3, Figure 4). Per the study plan, no transmitters were attached and the bats were not tracked.

3.3 DISCUSSION

Four Indiana bats were captured in Clinton, Fayette, and Belmont counties during surveys in 2008 (Table 2). Belmont County has one previous record of an Indiana bat, captured during 2007 surveys on the REX-East pipeline corridor (BHE 2007). The captures in Clinton and Fayette counties are the first known Indiana bat records for those counties.

In Clinton County, Bat 172.225 was detected roosting in a wooded area less than one mile from the capture site and bat 172.177 was tracked to a roost slightly over a mile from the capture site, distances which are not uncommon among Indiana bats. Home range size of Indiana bats varies in the literature; a study conducted in Michigan found 13 distinct foraging areas used by Indiana bats that were up to 2.6 miles (4.2 kilometers) away from a day roost (Murray and Kurta 2004). Another study in Michigan radio tracked a female Indiana bat to two roost trees located 1.3 miles and 0.6 mile (2.1 kilometers and 0.93 kilometers) from the point of capture (Winhold et al. 2005).

The second Clinton County bat, Bat 172.177 was found to be roosting in a plastic tube attached to a utility pole. Though a utility pole is an unusual roost for an Indiana bat, this type of roost has been documented in the past. A maternity colony of Indiana bats was observed roosting under the plastic guard that covers the ground wire of a light pole in Indiana (V. Brack unpublished data as cited in Whitaker et al. 2006). Another maternity colony in Indiana was found roosting under the plastic guard on an electric utility pole (Hendricks et al. 2005). A male adult Indiana bat was found roosting under the metal bracket of three different utility poles in Arkansas (Harvey et al. 2002). In addition to Indiana bats, other species, such as northern long-eared bats (*Myotis septentrionalis*; Sparks et al. 2004) and big brown bats (*Eptesicus fuscus*; Winterhalter 2004), have been reported to roost in utility poles.

Roosts used by the female Indiana bats tracked during this study were not located on the REX-East pipeline right-of-way.

4.0 LITERATURE CITED

- BHE Environmental, Inc. (BHE). 2007. Mist Net Survey for the Indiana Bat within the Proposed REX-East Pipeline Corridor in Four States. Unpublished report submitted to Natural Resource Group. September 19, 2007.
- Callahan, E., R. Drobney, and R. Clawson. 1997. Selection of summer roosting sites by Indiana bats (*Myotis sodalis*) in Missouri. *Journal of Mammalogy* 78:818-825.
- Gardner, J.E., J.D. Garner, and J.E. Hofmann. 1991. Summer roost selection and roosting behavior of *Myotis sodalis* (Indiana bat) in Illinois. Unpublished report, Illinois Natural History Survey, Section of Faunistic Surveys and Insect Identification. 56 pp.
- Gardner, J.E., J.D. Garner, and J.E. Hofmann. 1989. A portable mist netting system for capturing bats with emphasis on *Myotis sodalis* (Indiana bat). *Bat Research News* 30(1):1-8.
- Gumbert, M., J. O'Keefe, and J. MacGregor. 2002. Roost fidelity in Kentucky. Pp. 143-152 in A. Kurta and J. Kennedy (eds.). *The Indiana Bat: Biology and Management of an Endangered Species*. Bat Conservation International, Austin, Texas.
- Harvey, M.J. 2002. Status and ecology in the southern United States. Pp. 29-34 in A. Kurta and J. Kennedy (eds.). *The Indiana Bat: Biology and Management of an Endangered Species*. Bat Conservation International, Austin, Texas.
- Hendricks, W.D., R. Ijames, L. Alverson, J. Timpone, M. Muller, N. Nelson, and J. Smelser. 2004. Notable roosts for the Indiana bat (*Myotis sodalis*). Pp. 133-138 in K.C. Vories and A. Harrington (eds.). *Proceedings of Indiana Bat and Coal Mining: a Technical Interactive Forum*. U.S. Department of Interior, Office of Surface Mining, Alton, Illinois and Coal Research Center, Southern Illinois University, Carbondale, Illinois.
- Kurta, A., D.H. Miller, and S.W. Murray. 2002. Roost selection and movements across the summer landscape. Pp. 118-129 in A. Kurta and J. Kennedy (eds.). *The Indiana Bat: Biology and Management of an Endangered Species*. Bat Conservation International, Austin, Texas.
- Murray, S.W. and A. Kurta. 2004. Nocturnal activity of the endangered Indiana bat (*Myotis sodalis*). *Canadian Journal of Zoology* 262:197-206
- Sparks, J.K.F., B.J. Foster, and D.W. Sparks. 2004. Utility pole used as a roost by a northern myotis, *Myotis septentrionalis*. *Bat Research News* 45(3): 94.
- Whitaker, J.O., Jr., D.W. Sparks, and V. Brack, Jr. 2006. Use of artificial roost structures by bats at the Indianapolis International Airport. *Environmental Management* 38(1):28-36.

Winhold, L., E. Hough, and A. Kurta. 2005. Long-term fidelity by tree-roosting bats to a home range. *Bat Research News* 46(1):9-10.

Winterhalter, E. 2004. A novel maternity roost of big brown bats (*Eptesicus fuscus*). *Bat Research News* 45(1): 9-10.

U.S. Fish and Wildlife Service (USFWS). 2007. Agency Draft: Indiana Bat (*Myotis sodalis*) Revised Recovery Plan. Region 3 U.S. Fish and Wildlife Service, Ft. Snelling, Minnesota. April 2007.

FIGURES

LARGE-FORMAT IMAGES

One or more large-format images (over 8 ½" x 11") go here.
These images are available in e-Library at:

Accession Number(s) 20080723-0174

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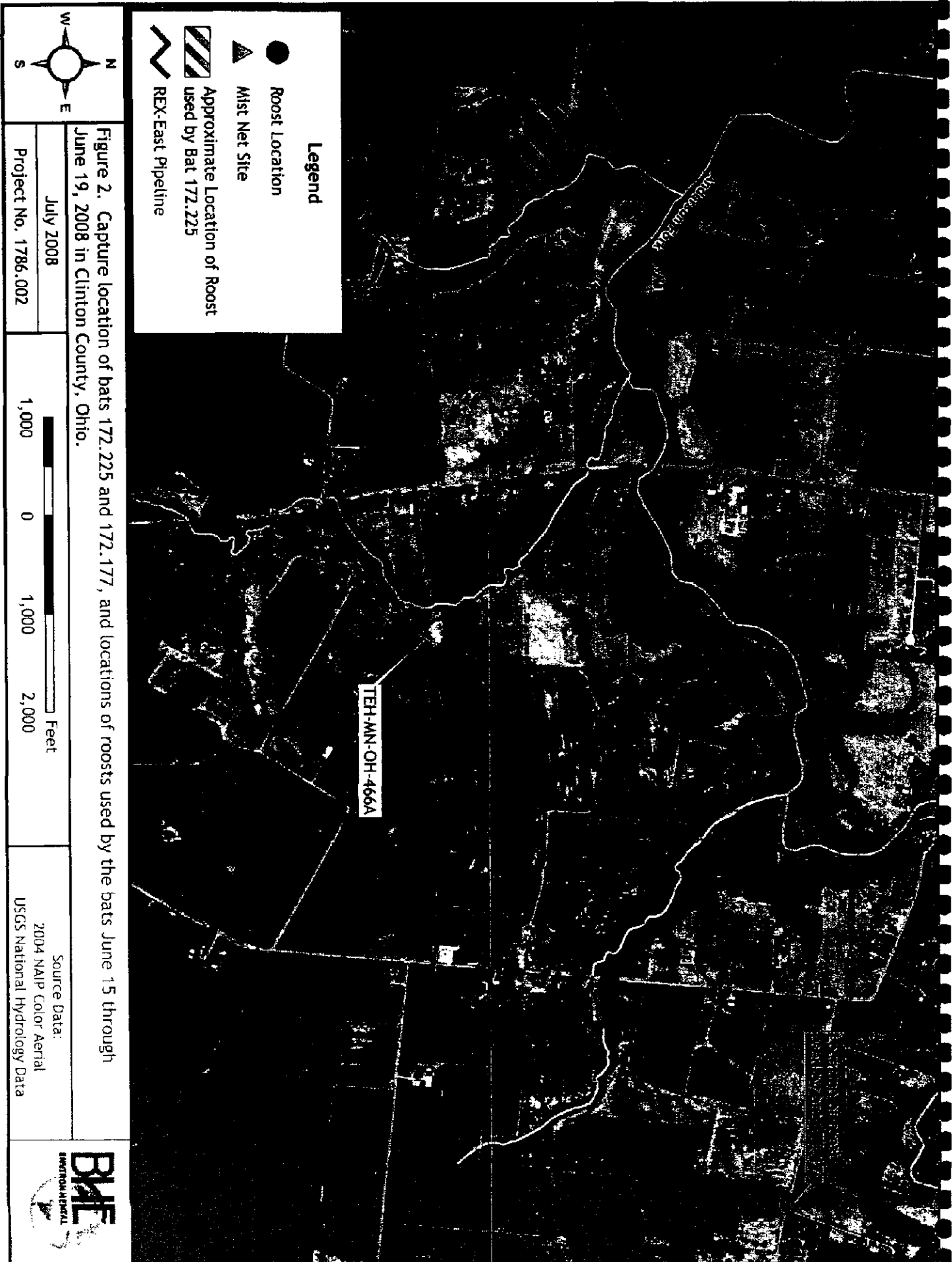
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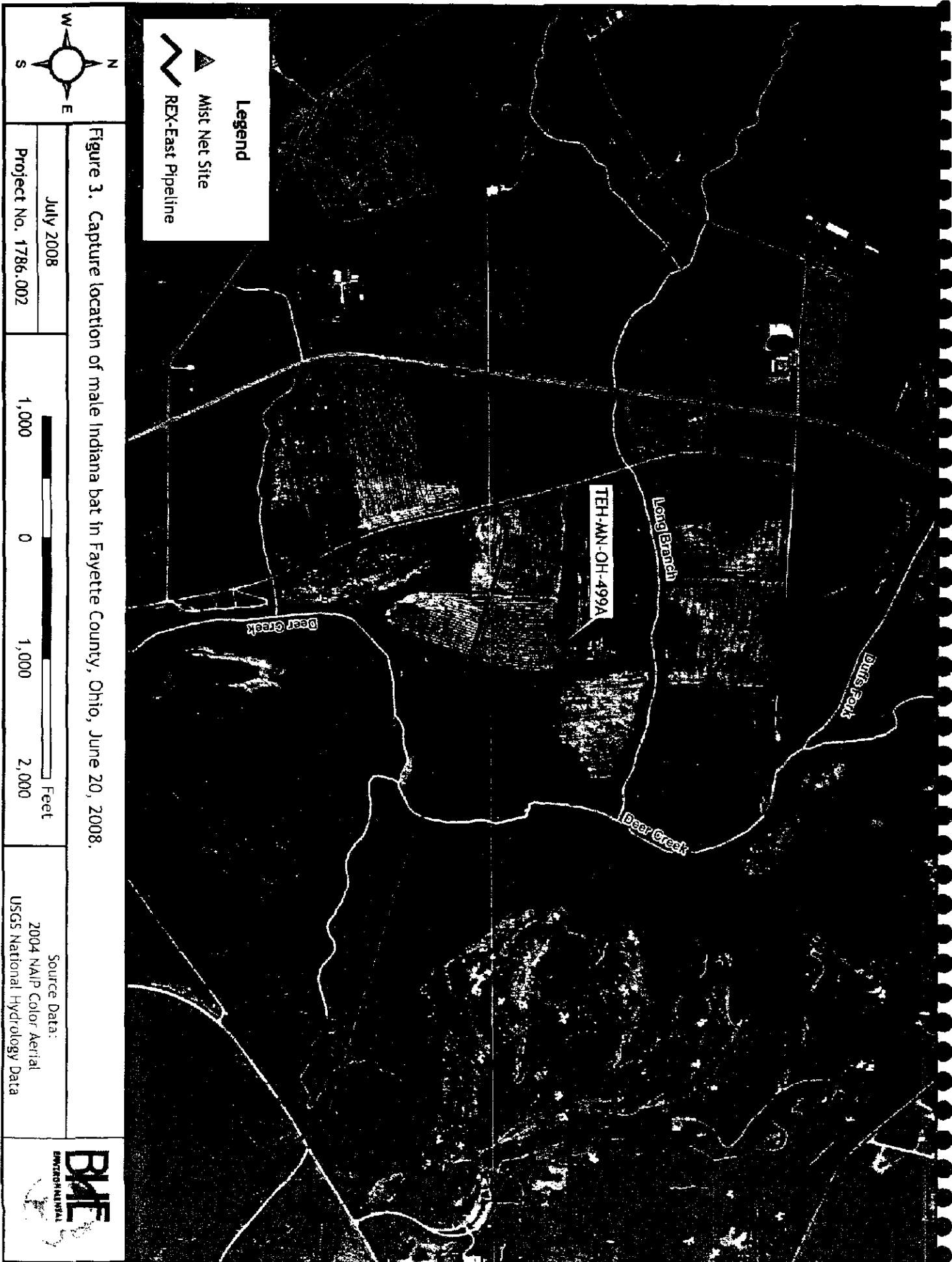
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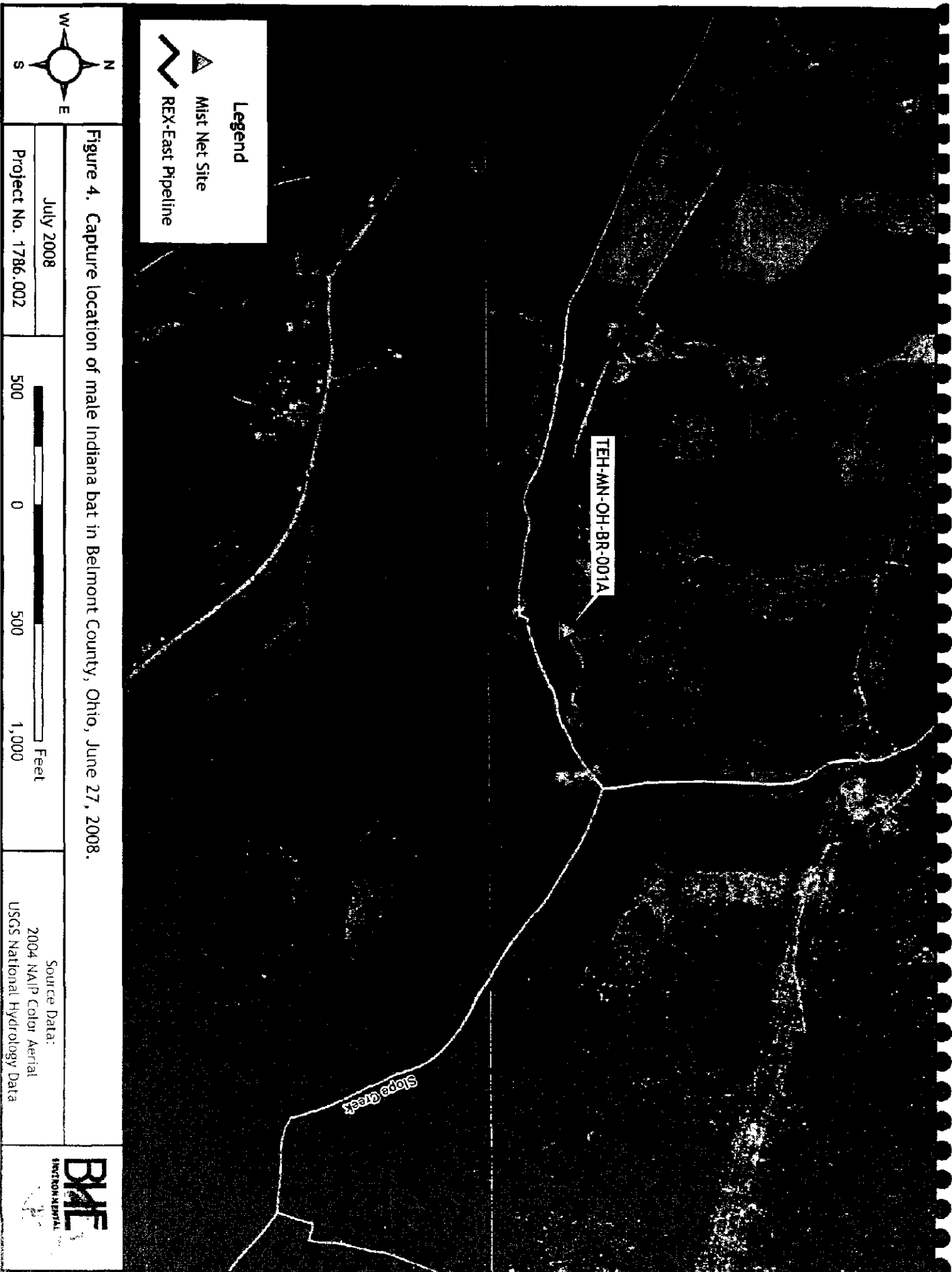
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Appendix A. USFWS Indiana Bat Survey Guidelines

GUIDELINES FOR MIST NETTING INDIANA BATS

These guidelines were prepared by the Indiana Bat Recovery Team and are presented in the Indiana Bat (*Myotis sodalis*) Revised Recovery Plan (USFWS 2007).

RATIONALE

A typical mist-net survey is an attempt to determine presence or probable absence of the species; it does not provide sufficient data to determine population size or structure. Following these guidelines will standardize procedures for mist netting. It will help maximize the potential for capture of Indiana bats at a minimum acceptable level of effort. Although the capture of bats confirms their presence, failure to catch bats does not absolutely confirm their absence. Netting effort as extensive as outlined below usually is sufficient to capture Indiana bats if they are present. However, there have been instances in which additional effort yielded detection when the standard effort did not. The Service accepts the results of these surveys to determine presence for the purposes of Section 7 consultation.

NETTING SEASON: May 15 - August 15

May 15-August 15 are acceptable limits for documenting the presence of summer populations of Indiana bats, especially maternity colonies. (However, see Kiser and MacGregor 2005 for precautions regarding early-season surveys between May 15 and June 1, as well as late-season surveys between August 1 and August 15). Capture of reproductive adult females (i.e., pregnant, lactating, or post-lactating) and/or young of the year during the May 15-August 15 period indicates that a nursery colony is active in the area. Outside these dates, even when Indiana bats are caught, data should be carefully interpreted. Particularly if only a single bat is captured, it may be a transient or migratory individual.

EQUIPMENT

Mist nets to be used for Indiana bat surveys should be the finest, lowest visibility mesh commercially available: 1) In the past, this was 1 ply, 40 denier monofilament-denoted 40/1; 2) Currently, monofilament is not available and the finest on the market is 2 ply, 50 denier nylon denoted 50/2; 3) The finest mesh size available is approximately 38 mm (~1 1/2 in).

No specific hardware is required. There are many suitable systems of ropes and/or poles to hold the nets. The system of Gardner et al. (1989) has been widely used. See NET PLACEMENT below for minimum net heights, habitats, and other netting requirements that affect the choice of hardware

NET PLACEMENT

Potential travel corridors such as streams or logging trails typically are the most effective places to net. Place the nets approximately perpendicular across the corridor. Nets should fill the corridor from side to side and from stream (or ground) level up to the overhanging canopy. A typical set is 7 m high consisting of three or more nets stacked on top one another and up to 20 m wide. (Different width nets may be purchased and used as the situation dictates.)

Occasionally it may be desirable to net where there is no good corridor. Take caution to get the nets up into the canopy. The typical equipment described in the section above may be inadequate for these situations, requiring innovation on the part of the observers.

See Kiser and MacGregor (2005) for additional discussion of net placement.

RECOMMENDED NET SITE SPACING

Stream corridors one net site per km of stream.

Study areas other than stream corridors two net sites per square km of habitat.

MINIMUM LEVEL OF EFFORT

A "net night" is defined as one net set up for one night. Netting at each site should include at least four net nights, consisting of: 1) a minimum of two net locations at each site (at least 30 m apart, especially in linear habitat such as a stream corridor); and 2) a minimum of two nights of netting (i.e., two net locations for two nights = four net nights per site). The sample period should begin at sunset; net for at least 5 hours (longer sample periods may improve success). For purposes of determining presence or probable absence of Indiana bats, four net nights at a site are not required if Indiana bats are caught sooner (i.e., if Indiana bats are caught on the first night of netting, a second night is not required).

CHECKING NETS

Each net should be checked approximately every 10 minutes. Some researchers prefer continuous monitoring (with or without an electronic bat detector); care must be taken to avoid noise and movement near the nets if this technique is used. When monitoring the site continuously with a bat detector, bats can be detected immediately when they are captured in the net. Prompt removal from the net decreases stress on the bat and potential for the bat to escape (MacCarthy et al. 2006). Monitoring the net with a bat detector also allows the researcher to assess the effectiveness of their net placement (i.e., if bats are active near the nets but avoiding capture); this may allow for adjustments that will increase netting success on subsequent nights. There should be no disturbance near the nets, other than to check nets and remove bats.

WEATHER AND LIGHT CONDITIONS

Severe weather adversely affects capture of bats. If Indiana bats are caught during weather extremes, it is probably because they are at the site and active despite inclement weather. On the other hand, if bats are not caught, it may be that there are bats at the site but they may be inactive due to the weather. Negative results combined with any of the following weather conditions throughout all or most of a sampling period are likely to require additional netting: 1) precipitation; 2) temperatures below 10°C; and/or 3) strong winds (use good judgment: moving nets are more likely to be detected by bats).

It is typically best to set nets under the canopy where they are out of the moonlight, particularly when the moon is ½-full or greater. Areas illuminated by artificial light sources should also be avoided.

Appendix B. Mist Net Survey Data Sheets

TEH-MN-OH-466A

Site Name/Number: TEH-OH-10.9Page 1 of 2

NET SITE DESCRIPTION

Date: 6.14.08 Biologists: Gardner, SamerayCounty: Clinton State: OH Quad: LibertyProject Name: REY-East Project Number: 1786.002-001UTM Zone: 17S GPS Waypoint Name: TEH-OH-10.9Easting: 2 5 5 6 1 9 WGS 84Northing: 4 3 8 0 2 5 3

Comments (If photos taken, include direction camera was facing): _____

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

NA

VEGETATION:

Estimated % Canopy Closure: Net 1 = 20% Net 2 = 70%

Dominant canopy species (at least 3; scientific names; spell out):

Juglans nigra, Corylus sp., Platanus occidentalis

Average canopy diameter at breast height (DBH; indicate units):

25 cm

Dominant understory species (at least 3; scientific names; spell out):

Elm (Corylus sp.), Acer saccharum, Prunus serotina

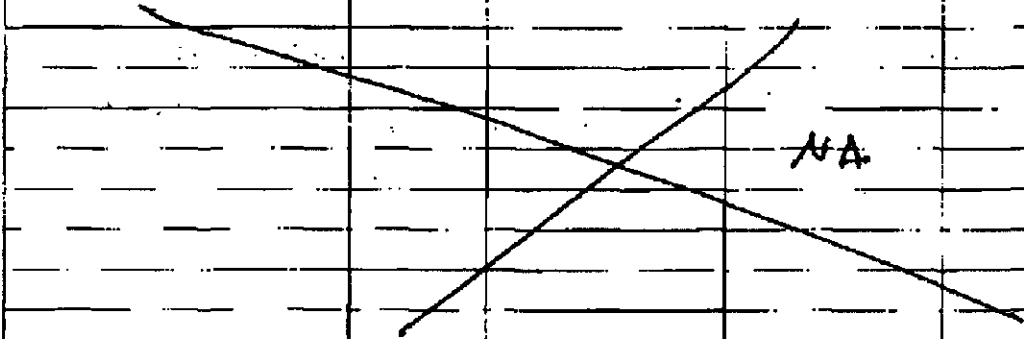
Average understory DBH (indicate units):

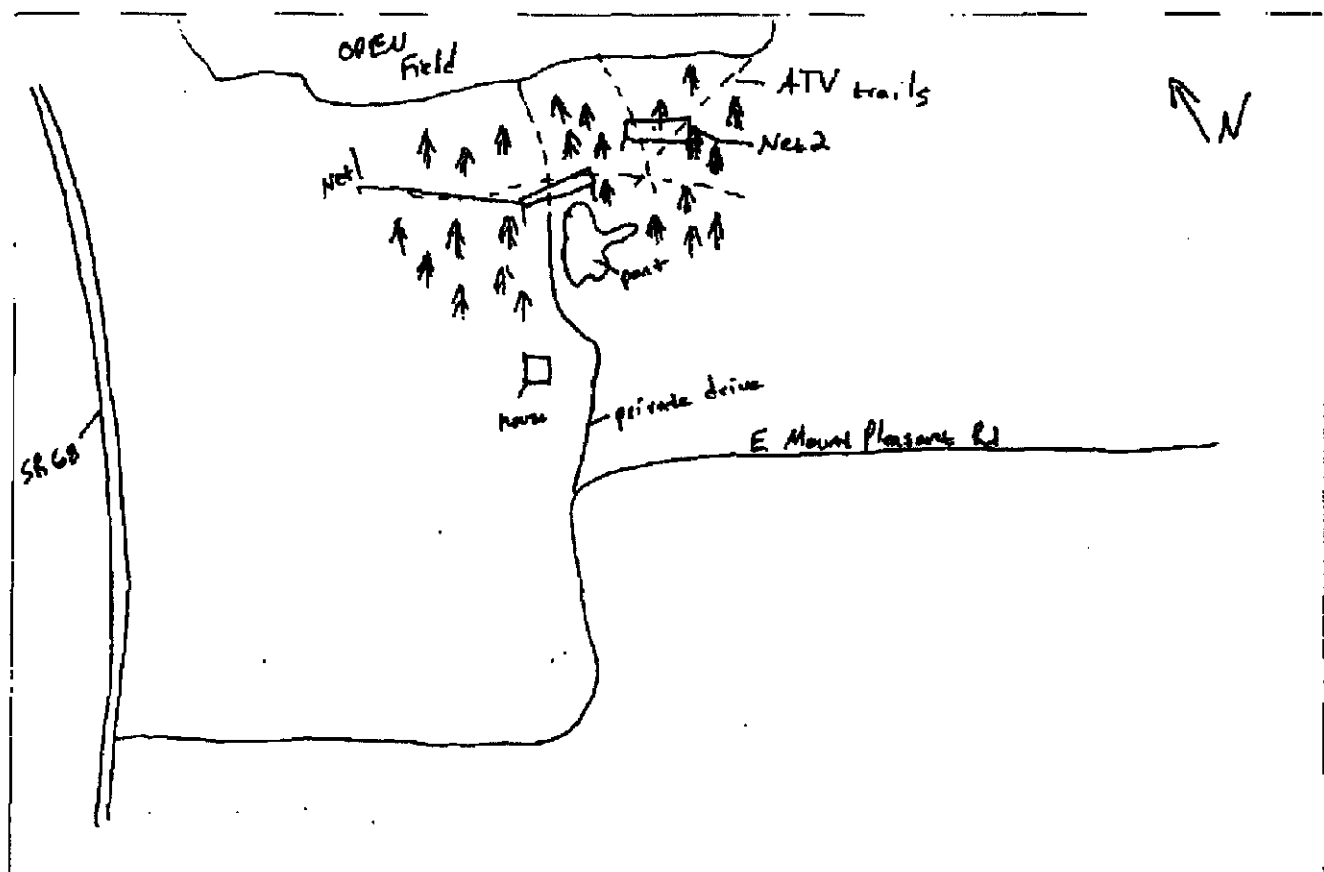
8 cmEstimated density of understory vegetation: high moderate low

TEH-MN-OH-466A

Site Name/Number: TEH-OH-10.9Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
				

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-OH-10.9Page 1 of 1TEH-MN-OH-466A**WEATHER DATA**Date: 6.14.08Biologists: Samoray, GardnerCounty: ClintonState: OHQuad: LibertyProject Name: BEK-EastProject Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ (full)

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	68°	<1	—	Y	0%	nets under canopy
2135	66°	<1	—	Y	0%	
2205	66°	<1	—	Y	0%	
2235	64°	<1	—	Y	0%	
2305	64°	<1	—	Y	0%	
2335	63°	<1	—	Y	0%	
0005	62°	<1	—	Y	0%	
0035	62°	<1	—	Y	0%	
0105	62°	<1	—	Y	0%	
0135	61°	<1	—	Y	0%	
0205	61°	<1	—	Y	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Page 1 of 1

BAT CAPTURE DATA SHEET

Site Description/Comments: Both nets are across ATV trails in wooded area just south of a field and the proposed ROW. Net 1 is also on the southern end of a small pond.

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

TEH-MN-OH-466A

Site Name/Number: TEH-OH-10.9 (h.u.)Page 1 of 1

WEATHER DATA

Date: 6.15.08Biologists: Samora, GardnerCounty: ClintonState: OHQuad: LibertyProject Name: REX EastProject Number: 1786.002-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	73°	1-3	S	N	100%	
2135	72°	1-3	S	N	100%	
2205	72°	1-3	S	N	100%	
2235						Canceled due to weather
2305						
2335						
0005						
0035						
0105						
0135						
0205						

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

TEH-MN-OH-466A

Site Name/Number: TEH-OH-10.9 (Un.)

Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 6.15.08 Biologists: Gardner, Sumner
 County: Clinton State: OH Quadrangle: Liberty
 Project Name: REX East Project Number: 1186.002-001
 Net 1 Size: width 60' height 20' Net 2 Size: width 42' height 20'

Site Description/Comments: Bat nets are across ATV trails in wooded area just south of an open field & the proposed ROW. Nets 1 is also located on the northern end of a small pond

Cancelled Due To Weather

Net Up Time: 2105				Net Down Time: 2215							
Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/ No.	Species (scientific name spell out)	Comments
1	2	2120	2.5	A	F	L	7.0	35.5	—	<u>Perimyotis subflavus</u>	
2	2	2120	3.5	A	F	P	8.0	36.0	—	<u>Perimyotis subflavus</u>	
3	1	2140	4.0	A	F	L	16.5	36.0/41.0	—	<u>Lasiurus borealis</u>	
											Cancelled due to weather

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

TEH-MN-OH-466A

Site Name/Number: TEH-OH-10.9 (h.u.)Page 1 of 1

WEATHER DATA

Date: 6.16.08Biologists: Gardner, SanorayCounty: ClintonState: OHQuad: LibertyProject Name: REX-EastProject Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ (full)

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	70°	4-7	N NE	N	30%	nets under canopy
2135	70°	1-3	N NE	N	30%	
2205	68°	1-3	NE	Y	10%	
2235	66°	1-3	NE	Y	0%	
2305	62°	1-3	NE	Y	15%	
2335	61°	1-3	NE	Y	30%	
0005	59°	<1	—	Y	20%	
0035	58°	<1	—	Y	20%	
0105	58°	<1	—	Y	10%	
0135	58°	<1	—	Y	10%	
0205	58°	<1	—	Y	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

TEH-MN-OH-499A

Site Name/Number: TEH-OH-14.5-2.0 (h.u.)Page 1 of 2

NET SITE DESCRIPTION

Date: 6.20.08 Biologists: Samoray, GardnerCounty: Fayette State: OH Quad: MadisonProject Name: REX-East Project Number: 1786-002-001UTM Zone: 17S GPS Waypoint Name: TEH0H14-52Easting: 3 0 5 5 5 5Northing: 4 3 9 1 0 5 8

Comments (If photos taken, include direction camera was facing): _____

TEH-MN-OH-499A

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (Indicate units):

Turbidity:

Presence of open flyway above stream?

NA

VEGETATION:

Estimated % Canopy Closure: Net 1 = 5% Net 2 = 10%

Dominant canopy species (at least 3; scientific names; spell out):

Juglans nigra, Populus deltoides, Fraxinus americana

Average canopy diameter at breast height (DBH; indicate units):

15cm

Dominant understory species (at least 3; scientific names; spell out):

Poaaceae, Prunus americana, Elaeagnus, umbellata

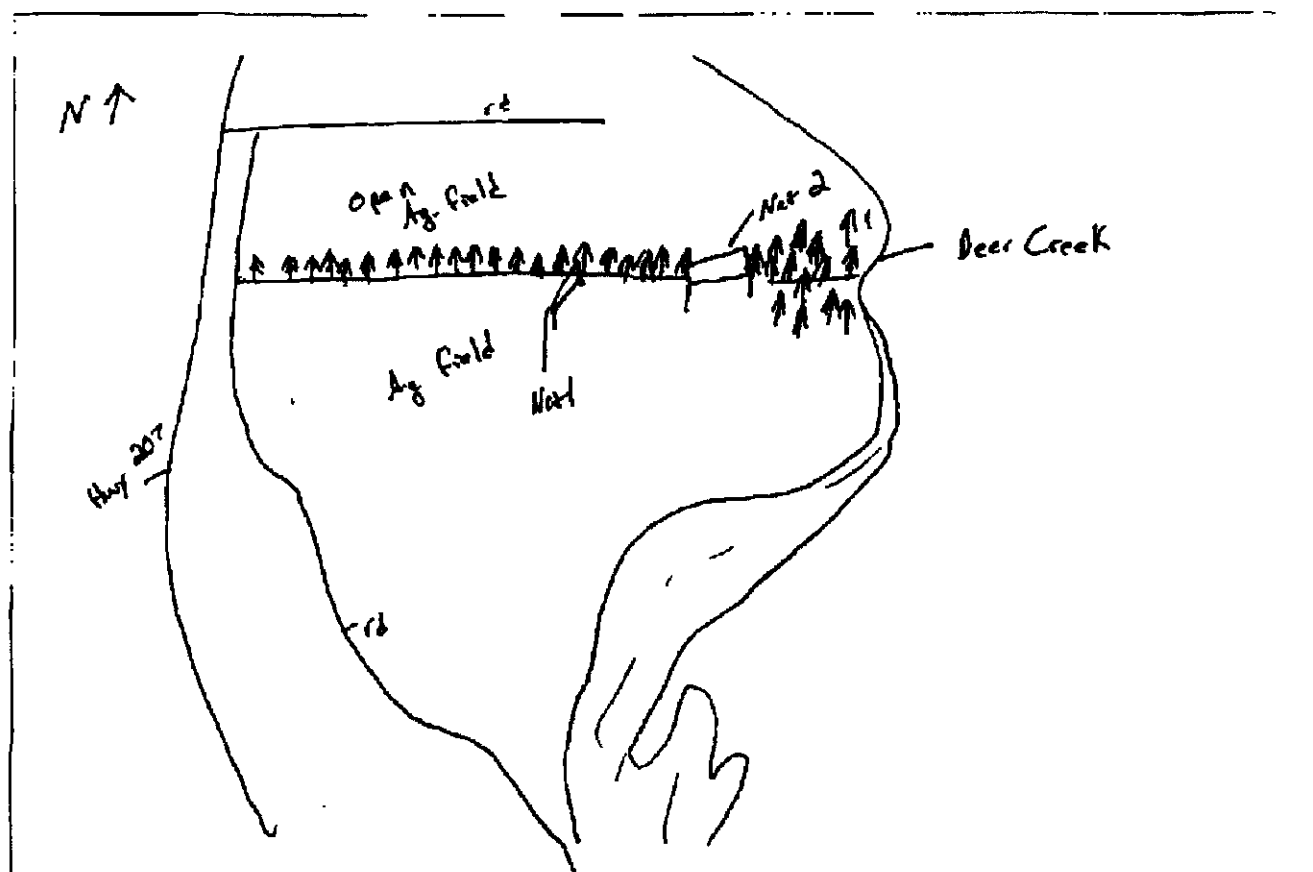
Average understory DBH (indicate units):

5cmEstimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-04-499APage 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
X				
		NO PRS present		

Drawing of net site. Include north arrow & location of each net.

TEH-MN-OH-494

Site Name/Number: TEH-OH-14.5-200 (b.u.)Page 1 of 1

WEATHER DATA

Date: 6.20.08Biologists: Samray, GardnerCounty: FayetteState: OHQuad: MadisonProject Name: REX EastProject Number: 1786.002-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ (full)

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	66°	<1	—	N	5%	
2135	62°	<1	—	N	5%	
2205	58°	<1	—	N	0%	
2235	57°	<1	—	N	0%	
2305	56°	<1	—	N	0%	
2335	56°	<1	—	Y	0%	
0005	56°	<1	—	Y	0%	
0035	56°	<1	—	Y	0%	
0105	56°	<1	—	Y	0%	
0135	56°	<1	—	Y	0%	
0205	55°	<1	—	Y	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

TEH-MN-04-499A

Site Name/Number: TEH-04-14.5 Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 6-20-08 Biologists: Samoa, Gardner
 County: Fayette State: OH Quadrangle: Mediana
 Project Name: REX East Project Number: 1786.002-001

Net 1 Size: width 30' height 20' Net 2 Size: width 30' height 30'

Site Description/Comments: Net one is set up along tree line in field on north edge of tract OH-EX-026.002
access & tractor road. Net two is across opening between the two fields in tree line.

Net Up Time: 2105 Net Down Time: 0205

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	2	2225	4.0	—	—	—	—	—	—	<u>Eptesicus fuscus</u>	<u>escape & net</u>
2	2	2230	4.0	A	F	L	24.0	49.0	—	<u>Eptesicus fuscus</u>	
3	1	2240	1.5	A	M	N	7.0	37.0	<u>silver metal</u>	<u>Myotis sodalis</u>	<u>blistered tissue on LFA</u>
4	1	2310	4.0	A	F	L	34.0	47.0	—	<u>Eptesicus fuscus</u>	
5	2	2345	3.0	A	F	L	26.0	49.0	—	<u>Eptesicus fuscus</u>	
6	2	0145	1.5	A	F	L	7.0	35.5	—	<u>Myotis septentrionalis</u>	<u>blistered tissue on left ear</u>
7	1	0205	1.0	A	F	PL	13.0	42.0	—	<u>Lasius borealis</u>	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

TEH-MN-OH-449A

Site Name/Number: TEH-OH-14.5-220 (h.u.)Page 1 of 1

WEATHER DATA

Date: 6.21.09Biologists: Samosay, GardnerCounty: FayetteState: OHQuad: MadisonProject Name: REX EastProject Number: 1786.002-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	62°	<1	—	N	95%	
2135	59°	<1	—	N	25%	
2205	59°	<1	—	N	20%	
2235	58°	<1	—	N	10%	
2305	58°	<1	—	N	10%	
2335	58°	<1	—	N	30%	
0005	57°	<1	—	Y	40%	
0035	57°	<1	—	Y	30%	
0105	57°	<1	—	Y	30%	
0135	57°	<1	—	Y	20%	
0205	56°	<1	—	Y	20%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

TEH-MN-OH-500A

Site Name/Number: TEH-OH-14.5-10Page 1 of 2

NET SITE DESCRIPTION

Date: 6.18.08 Biologists: Gardner, SamorayCounty: Pickaway State: OH Quad: ManassProject Name: REX-East Project Number: 1786.002-001UTM Zone: 17S GPS Waypoint Name: TEH0H14-51Easting: 3 0 7 3 2 4 (WGS84)Northing: 4 3 9 0 5 6 2

Comments (If photos taken, include direction camera was facing): _____

TEH-MN-OH-500A

STREAM NAME:

Bank Height (indicate units):

Channel Width (Indicate units):

Stream Width (Indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

NA

VEGETATION:

Estimated % Canopy Closure: Net 1 = 90% Net 2 = 70%

Dominant canopy species (at least 3; scientific names; spell out):

Fraxinus americana, Ulmus rubra, Quercus velutina

Average canopy diameter at breast height (DBH; indicate units):

15cm

Dominant understory species (at least 3; scientific names; spell out):

Elaeagnus umbellata, Rosa multiflora, Cornus ^{ambigua} sp., Crataegus sp.

Average understory DBH (indicate units):

3cmEstimated density of understory vegetation: high moderate low

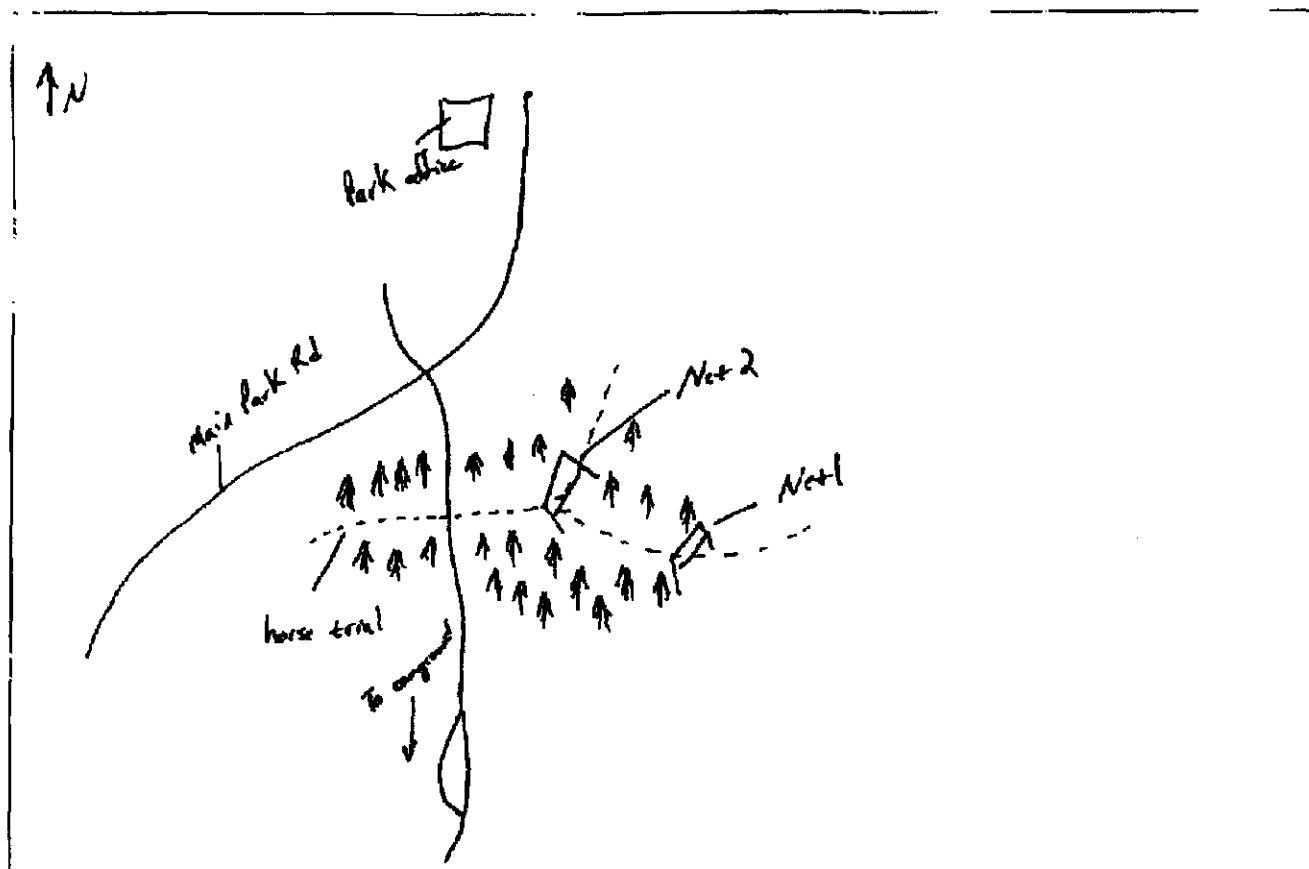
Site Name/Number: 1EH-OH-14.5-76 (h.u.)

Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
NO PRTs				

Drawing of net site. Include north arrow & location of each net.



TEH-MN-OH-500A

Site Name/Number: TEH-OH-14.5-~~14.5~~ (h.u.)Page 1 of 1

WEATHER DATA

Date: 6.18.08Biologists: Sameray, GardnerCounty: PickawayState: OHQuad: MonroeProject Name: REX-EastProject Number: 1786.062-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	59	<1	—	N N	10%	Full moon, sets under canopy
2135	58	<1	—	N	5%	
2205	57°	<1	—	N	0%	
2235	57°	<1	—	N	0%	
2305	55°	<1	—	N	0%	
2335	54°	<1	—	N	0%	
0005	54°	<1	—	N	0%	
0035	54°	<1	—	N	0%	
0105	53°	<1	—	Y	0%	
0135	53°	<1	—	Y	0%	
0205	53°	<1	—	Y	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Page 1 of 1

BAT CAPTURE DATA SHEET

County: Pickaway State: OH

State: OH

Quadrangle: Monroe

Project Name: REX EastProject Number: 1736-002-001

Net 1 Size: width 18' height 20'

Net 2 Size: width 30' height 20'

Site Description/Comments: Both nests are across a horse trail just north of the road leading to sawground, ~ 50m from road

Net Up Time: 2103

Net Down Time: 0203

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

TEH-MN-OH-500A

Site Name/Number: TEH-OH-14.5-10Page 1 of 1

WEATHER DATA

Date: 6.19.08 Biologists: Samosay, GardnerCounty: Pickaway State: OH Quad: MenaceProject Name: REX-East Project Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2105	62°	<1	—	N	5%	
2135	60°	<1	—	N	5%	
2205	59°	<1	—	N	0%	
2235	58°	<1	—	Y	0%	
2305	56°	<1	—	Y	0%	
2335	55°	<1	—	Y	0%	
0005	55°	<1	—	Y	10%	
0035	55°	<1	—	Y	10%	
0105	55°	<1	—	Y	0%	
0135	55°	<1	—	Y	0%	
0205	55°	4	—	Y	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 6.19.08 Biologists: Sammons, Gardner
County: Pickaway State: OH Quadrangle: Monroe
Project Name: 8EY East Project Number: 1786.002-001
Net 1 Size: width 18' height 20' Net 2 Size: width 30' height 20'
Site Description/Comments: Both nets are across a horse trail just north of the park road leading to the campground, ~50m from road

Site Description/Comments: Both sites are across a horse trail just north of the park road leading to the campground, ~50m from road

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-577A (unit TEH-OH-25.0 site 1)Page 1 of 2**NET SITE DESCRIPTION**Date: 16 June 2008 Biologists: L. Winhold & M. FarmerCounty: Muskingum State: Ohio Quad: PhiloProject Name: REX East Project Number: 1786.002-001UTM Zone: 17S GPS Waypoint Name: TEMNOH577AEasting: 4 2 3 4 3 3Northing: 4 4 1 0 7 8 1Comments (If photos taken, include direction camera was facing): no photos
netted tract OH-MK-156.000STREAM NAME: None

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:Estimated % Canopy Closure: Net 1 = 80Net 2 = 70

Dominant canopy species (at least 3; scientific names; spell out):

Robinia pseudoacacia, Juglans nigra, Liquidambar tulipifera
Average canopy diameter at breast height (DBH; indicate units): 24cm

Dominant understory species (at least 3; scientific names; spell out):

Acer saccharum, Acer negundo, Cornus florida
Average understory DBH (indicate units): 4cmEstimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-04-577APage 1 of 1**WEATHER DATA**Date: 16 June 2008Biologists: L. Winhold & M. FarmerCounty: MuskingumState: OhioQuad: PhibProject Name: REX EastProject Number: 1786.002-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

nearly

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
21:00	67	< 1	—	no	10	
21:30	66	< 1	—	no	10	
22:00	64	< 1	—	yes	10	moon not illuminating nets.
22:30	64	< 1	—	yes	0	
23:00	65	1-3	W	yes	10	
23:30	66	4-7	W	yes	30	
24:00	67	4-7	W	yes	30	
00:30	64	< 1	—	yes	30	
01:00	65	8-12	W	yes	50	
01:30	63	8-12	W	yes	30	
02:00	63	8-12	W	yes	50	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEL-MN-DH-577APage 1 of 1**WEATHER DATA**Date: 17 June 2008Biologists: L. Winhold + M. FarmerCounty: MuskingumState: OhioQuad: PhiloProject Name: REX EastProject Number: 1786.002-001Estimated Moon Phase: new ¼ ½ ¾ (full) nearly

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
21:00	62	<1	—	no	30	
21:30	60	<1	—	no	30	
22:00	58	<1	—	no	10	
22:30	56	<1	—	yes	0	moon behind trees
23:00	55	<1	—	yes	0	
23:30	54	<1	—	yes	0	
24:00	53	<1	—	yes	0	
00:30	52	<1	—	yes	0	
01:00	52	<1	—	yes	0	
01:30	51	<1	—	yes	0	
02:00	51	<1	—	yes	0	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-OH-578APage 1 of 2

NET SITE DESCRIPTION

Date: 16-17 June 2008 Biologists: S. Williams, G. JanosCounty: Muskingum State: Ohio Quad: PhilProject Name: Rex-East Project Number: 1786-002-001UTM Zone: 17S GPS Waypoint Name: TEMNOH578AEasting: 4 2 4 2 1 5Northing: 4 4 1 1 4 9 0Comments (If photos taken, include direction camera was facing): Bath nets across mud logging road off of Poverty Ridge Rd.

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:

Estimated % Canopy Closure: Net 1 = 55% Net 2 = 20%

Dominant canopy species (at least 3; scientific names; spell out):

Acer saccharum, Acer rubra, Carya ovata

Average canopy diameter at breast height (DBH; indicate units):

16"

Dominant understory species (at least 3; scientific names; spell out):

Acer saccharum, Quercus alba, Liriodendron tulipifera

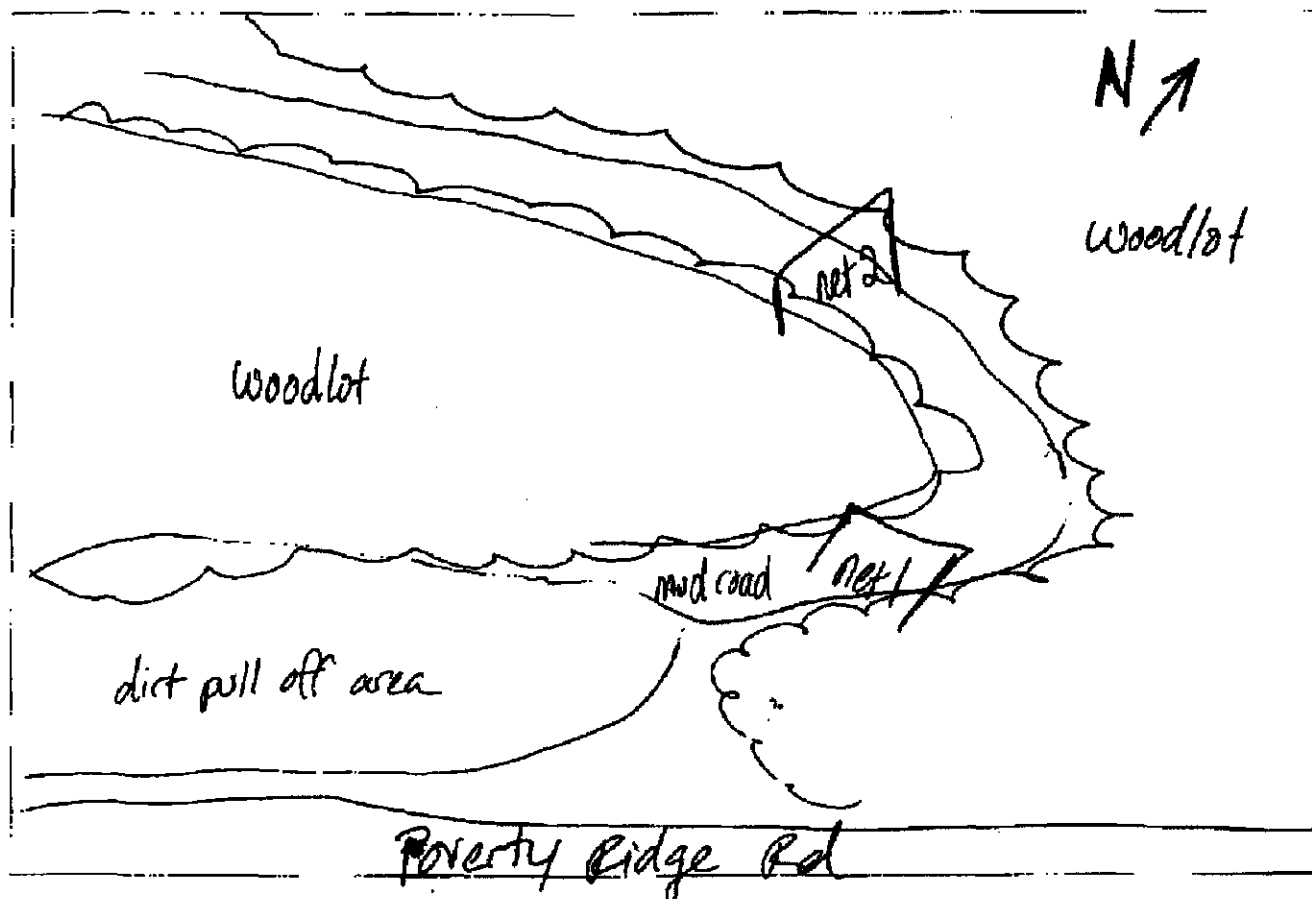
Average understory DBH (indicate units):

8"Estimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-OH-578APage 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
<i>Carya ovata</i>	10"	live	85%	
<i>Carya ovata</i>	14"	live	85%	
<i>Carya ovata</i>	18"	live	85%	
<i>Carya ovata</i>	16"	live	85%	

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-MIN-OH-578APage 1 of 1

WEATHER DATA

Date: 16 June 2008 Biologists: S. Williams, G. JanasCounty: Mustkingum State: Ohio Quad: PhiloProject Name: Rex East Project Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	68	<1	n/a	yes	10%	
2200	66	<1	n/a	yes	10%	
2300	68	4-7	varies	yes	0%	
0000	64	4-7	w	yes	0%	occasional gusts @ 8-12 mph
0100	64	<1	n/a	yes	0%	
0200	64	4	n/a	yes	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-OH-578APage 1 of 1**WEATHER DATA**Date: 17 June 2008Biologists: S. Williams, G. JanosCounty: MuskingumState: OhioQuad: PhiloProject Name: Rex-EastProject Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ \rightarrow full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	60	<1	n/a	no	0%	
2200	58	<1	n/a	yes	0%	
2300	58	<1	n/a	yes	15%	
0000	56	<1	n/a	yes	10%	
0100	54	<1	n/a	yes	0%	
0200	53	<1	n/a	yes	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MW-OH-578BPage 1 of 2**NET SITE DESCRIPTION**Date: 18 June 2008 Biologists: B. Steffen, J. HammersleyCounty: Muskingum State: OH Quad: PhiloProject Name: REX East 2008 Project Number: 1786.002UTM Zone: 17s GPS Waypoint Name: TEMNOH579BEasting: 4 2 3 7 3 4Northing: 4 4 1 2 2 0 7

! Needs to be
changed to
578B

Comments (If photos taken, include direction camera was facing): _____

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

N/A

VEGETATION:Estimated % Canopy Closure: Net 1 = 80%Net 2 = 30%

Dominant canopy species (at least 3; scientific names; spell out):

Liriodendron tulipifera, Quercus stellata, Quercus alba

Average canopy diameter at breast height (DBH; indicate units):

20 in

Dominant understory species (at least 3; scientific names; spell out):

Sassafras albidum, Liriodendron tulipifera, Cornus alternifolia

Average understory DBH (indicate units):

Estimated density of understory vegetation: high moderate low

BHE Environmental, Inc.

Site Name/Number: TEH-MN-OH-578BPage 1 of 1**WEATHER DATA**Date: 18 June 2008 Biologists: B. Steffen, J. HammersleyCounty: Muskingum State: OH Quad: PhiloProject Name: REX East 2008 Project Number: 1786.002Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	62	41	N/A	No	70%	
2130	60	41	N/A	No	70%	
2200	60	41	N/A	No	100%	
2230	60	41	N/A	No	100%	
2300	60	41	N/A	No	100%	
2330	58	41	N/A	No	100%	
0000	58	41	N/A	No	80%	moon behind tree line
0030	58	41	N/A	No	80%	" " "
0100	56	41	N/A	No	70%	" " "
0130	56	41	N/A	No	50%	" " "
0200	56	41	N/A	No	30%	" " "

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-OH-578BPage 1 of 1**WEATHER DATA**Date: 19 June 2008Biologists: B. Steffen, J. HammersleyCounty: MuskingumState: OHQuad: PhiloProject Name: REX East 2008Project Number: 1786.002

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	62	41	N/A	No	0%	
2130	62	41	N/A	No	0%	
2200	62	41	N/A	No	0%	
2230	60	41	N/A	No	0%	
2300	60	41	N/A	No	0%	moon behind tree line
2330	58	41	N/A	No	0%	" " "
0000	58	41	N/A	No	0%	" " "
0030	58	41	N/A	No	0%	" " "
0100	58	41	N/A	No	0%	" " "
0130	58	41	N/A	No	0%	" " "
0200	56	41	N/A	No	0%	" " "

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-OH-5783Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 19 June 2008 Biologists: B. Steffen, J. HammerleyCounty: Muskingum State: OH Quadrangle: PlutoProject Name: DEX East 2008 Project Number: 1786.002Net 1 Size: width 9m height 6m Net 2 Size: width 9m height 9mSite Description/Comments: Both nets across access roads through woodlot ~ 150 ft apart.Net Up Time: 2115 Net Down Time: 0215

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	1	2150	2m	A	M	Scrub	16	46.0	---	<i>Eptesicus fuscus</i>	
2	1	2150	1m	A	F	Lac	15	46.4	---	<i>Eptesicus fuscus</i>	
3	1	2150	2m	A	---	---	---	---	---	<i>Lasiurus borealis</i>	Escape from net
4	2	2220	0.5m	A	F	pregnant	18.0	47.0	---	<i>Eptesicus fuscus</i>	pre lactating
5	2	2310	9.0m	A	F	Preg	7.5	35.5	---	<i>Myotis lucifugus</i>	
6	1	0020	2.5m	A	F	Preg	9.0	38.3	---	<i>Myotis lucifugus</i>	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-580APage 1 of 2

NET SITE DESCRIPTION

Date: 18-19 June 2008 Biologists: S. Williams, G. JanosCounty: Muskingum State: Ohio Quad: RuraldaleProject Name: Rex-East Project Number: 1786-002 001UTM Zone: 17S GPS Waypoint Name: TEMNOH580AEasting: 4 2 5 1 3 4Northing: 4 4 1 4 2 3 0Comments (If photos taken, include direction camera was facing): Net 1
across grass clearing at woodlot opening, Net 2 across grass
road

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:

Estimated % Canopy Closure: Net 1 = 5% Net 2 = 20%

Dominant canopy species (at least 3; scientific names; spell out):

Gleditsia triacanthos, Platanus occidentalis, Juglans nigra

Average canopy diameter at breast height (DBH; indicate units):

Dominant understory species (at least 3; scientific names; spell out):

Sassafras albidum, Gleditsia triacanthos, Celtis occidentalis

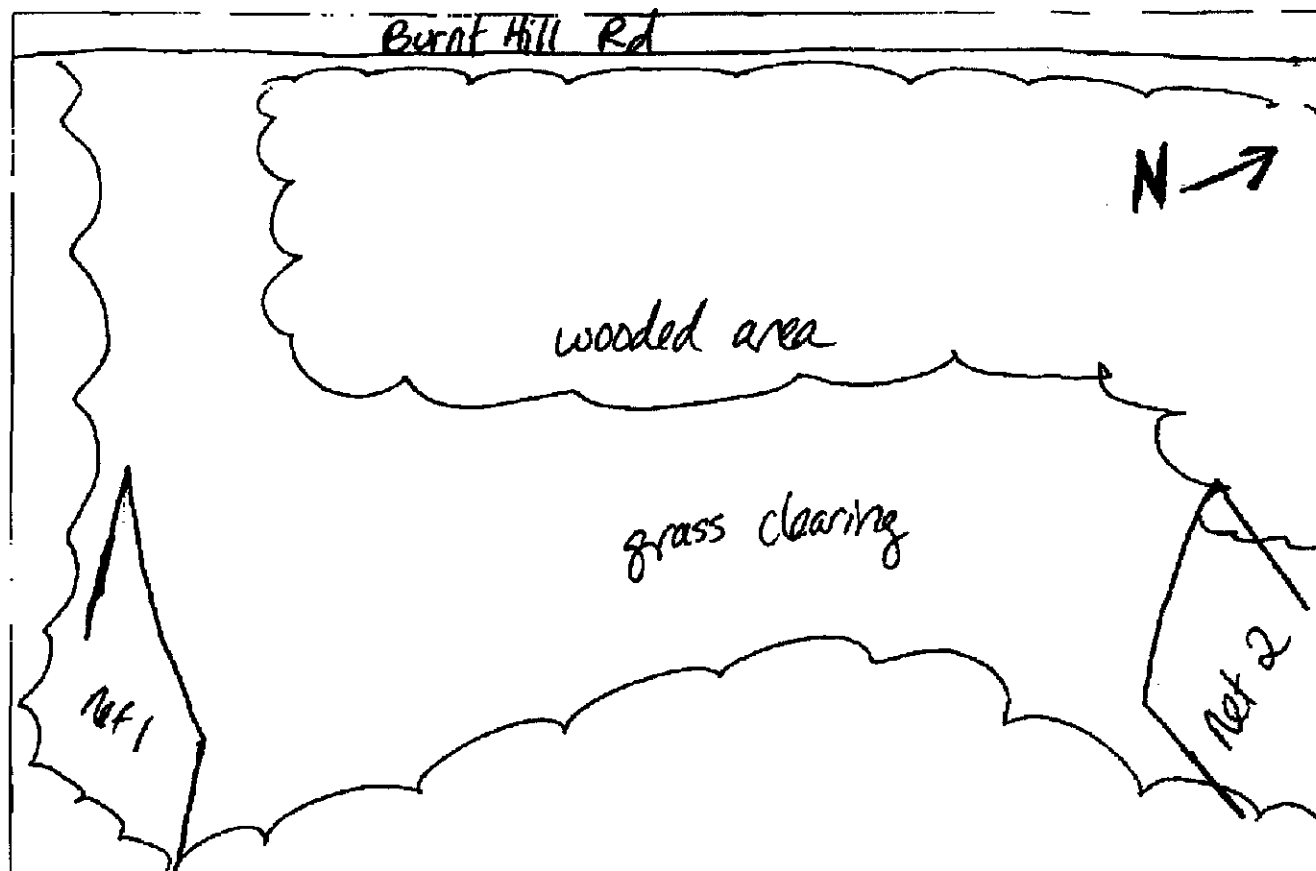
Average understory DBH (indicate units):

Estimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-OH-580APage 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
		None		

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-MN-OH-580APage 1 of 1

WEATHER DATA

Date: 18 June 2008Biologists: S. Williams, G. JanosCounty: MuskingumState: OhioQuad: RuraldaleProject Name: Rex-EastProject Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	60	<1	n/a	no	35%	
2200	59	<1	n/a	no	60%	
2300	56	<1	n/a	no	40%	
0000	55	<1	n/a	no	50%	
0100	54	<1	n/a	no	30%	
0200	53	<1	n/a	no	30%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-OH-580APage 1 of 1**WEATHER DATA**Date: 19 June 2008 Biologists: S. Williams, G. JanosCounty: Muskingum State: Ohio Quad: RuraldaleProject Name: Rox-East Project Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ Full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	57	<1	n/a	no	0%	
2200	56	4	n/a	no	0%	
2300	54	<1	n/a	no	0%	
0000	53	<1	n/a	no	0%	
0100	51	<1	n/a	yes, through trees	0%	
0200	50	<1	n/a	yes, through trees	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-04-580A

BAT CAPTURE DATA SHEET

Date: 19 June 2008
County: Muskingum
Project Name: Rox-East
Biologists: S. Williams, C. Jaros
State: Ohio
Quadrangle: Ruraldale
Project Number: 1786.002-001

Net 1 Size: width 42' height 30'

Net 2 Size: width 18' height 20'

Site Description/Comments: Net 1 (42' x 30' 3 tiers) across grass clearing at woodlot opening Net 2 (18' x 20' 2 tiers) across grass mtd

Net Up Time: 2100

Net Down Time: 02:00

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

BHE Environmental, Inc.

Site Name/Number: TEH-MN-OH-581A (unit TEH-OH-27.0 site 2)Page 1 of 2**NET SITE DESCRIPTION**Date: 18 June 2008 Biologists: L. Winhold + M. FarmerCounty: Muskingum State: Ohio Quad: NorwichProject Name: REX East Project Number: 1786.002-001UTM Zone: 17 S GPS Waypoint Name: TEMNOH581AEasting: 4 2 5 7 7 4Northing: 4 4 1 5 2 3 0Comments (If photos taken, include direction camera was facing): no photos
Netted fract OH-MK-192-000STREAM NAME: None

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:Estimated % Canopy Closure: Net 1 = 100Net 2 = 70

Dominant canopy species (at least 3; scientific names; spell out):

Quercus rubra, Prunus serotina, Carya ovata
Average canopy diameter at breast height (DBH; indicate units): 30 cm

Dominant understory species (at least 3; scientific names; spell out):

Acer saccharum, Juniperus rigida, Prunus serotina
Average understory DBH (indicate units): 5 cmEstimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-OH-581APage 1 of 1**WEATHER DATA**Date: 18 June 2008Biologists: L. Winhold & M. FarmerCounty: MuskingumState: OhioQuad: NorwichProject Name: REX EastProject Number: 1786.002-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
21:00	62	<1	—	no	100	
21:30	61	<1	—	no	100	
22:00	60	<1	—	no	100	
22:30	60	<1	—	no	95	
23:00	58	<1	—	no	80	moon behind clouds
23:30	57	<1	—	no	90	moon behind clouds
24:00	57	<1	—	yes	90	moon partially behind clouds
00:30	56	<1	—	yes	80	
01:00	56	<1	—	no	95	moon behind clouds
01:30	56	<1	—	yes	70	
02:00	55	<1	—	yes	60	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: IEH-MN-OH-581A

Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 18 June 2008 Biologists: L. Winhold & M. Farmer
County: Muskingum State: Ohio Quadrangle: Norwich
Project Name: REX East Project Number: 1786.002-001
Net 1 Size: width 6m height 7m Net 2 Size: width 9m height 7m

Site Description/Comments: heavily forested area with old oil drill pump station & tank.
Net 1 across forested maintenance road / 2-track
Net 2 across overgrown pipeline ROW.

Net Up Time: 21:00					Net Down Time: 02:00						
Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/ No.	Species (scientific name spell out)	Comments
1	2	22:10	2.0	A	F	P	9.0	38.4	—	Myotis lucifugus	
2	2	22:10	2.0	A	F	P	9.5	38.0	—	Myotis lucifugus	
3	2	22:30	2.5	A	F	P	—	38.0	—	Myotis lucifugus	escaped grasp
4	2	22:30	1.0	A	F	P	9.5	37.3	—	Myotis lucifugus	
5	1	22:40	3.0	A	F	L	9.5	39.0	—	Myotis lucifugus	
6	1	22:40	2.0	A	F	P	12.0	36.7	—	Myotis lucifugus	
7	1	22:40	0.5	A	F	P	10.5	39.6	—	Myotis lucifugus	
8	2	00:40	1.5	A	M	N	6.5	35.7	—	Myotis lucifugus	
9	2	00:40	3.0	A	F	L	8.0	37.2	—	Myotis lucifugus	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended
BHE Environmental, Inc.

Site Name/Number: TEH-MN-OH-581APage 1 of 1**WEATHER DATA**Date: 19 June 2008Biologists: L. Winhold & M. FarmerCounty: MuskingumState: OhioQuad: NorwichProject Name: REX EastProject Number: 1786-002-001

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full *mostly*

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
21:00	61	<1	—	no	0	
21:30	60	<1	—	no	0	
22:00	58	<1	—	no	0	
22:30	57	<1	—	no	0	
23:00	56	<1	—	yes	0	moon behind trees
23:30	56	<1	—	yes	0	
24:00	54	<1	—	yes	0	
00:30	54	<1	—	yes	0	
01:00	54	<1	—	yes	0	
01:30	53	<1	—	yes	0	
02:00	53	<1	—	yes	0	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: IEH-NN-0H-581APage 1 of

BAT CAPTURE DATA SHEET

Date: 19 June 2008 Biologists: L Winbold & M. FarmerCounty: Muskingum State: Ohio Quadrangle: NorwichProject Name: REX East Project Number: 1786.002-001Net 1 Size: width 6m height 7m Net 2 Size: width 9m height 7mSite Description/Comments: Same as 18 June 2008

Net Up Time: 21:00					Net Down Time: 0200						
Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/ No.	Species (scientific name spell out)	Comments
1	2	21:40	3.0	A	M	N	11.5	40.1	—	Lasiurus borealis	
2	1	22:00	1.5	A	F	P	8.5	35.9	—	Myotis septentrionalis	
3	2	22:30	2.0	A	F	L	10.5	37.0	—	Myotis lucifugus	
4	2	22:30	1.5	A	F	P	11.0	35.1	—	Myotis lucifugus	
5	1	22:50	1.5	A	F	P	11.0	38.0	—	Myotis lucifugus	
6	2	01:00	2.0	A	F	P	11.0	37.0	—	Myotis lucifugus	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-581BPage 1 of 2**NET SITE DESCRIPTION**Date: 20 June 2008 Biologists: B. Steffen, J. HammersleyCounty: Muskingum State: OH Quad: NorwichProject Name: PEK East 2008 Project Number: 1786.002UTM Zone: 17S GPS Waypoint Name: TEMNOH581BEasting: 4 2 6 3 2 8Northing: 4 4 1 6 0 8 8Comments (If photos taken, include direction camera was facing): Both nets
across a maintained ROW, ~ 250 ft apart**STREAM NAME:**

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

*No Stream***VEGETATION:**

Estimated % Canopy Closure: Net 1 = 30%

Net 2 = 90%

Dominant canopy species (at least 3; scientific names; spell out):

Quercus rubra, Quercus alba, Pinus strobus

Average canopy diameter at breast height (DBH; indicate units):

30 in

Dominant understory species (at least 3; scientific names; spell out):

Sassafras albidum, Acer saccharum, Liriodendron tulipifera

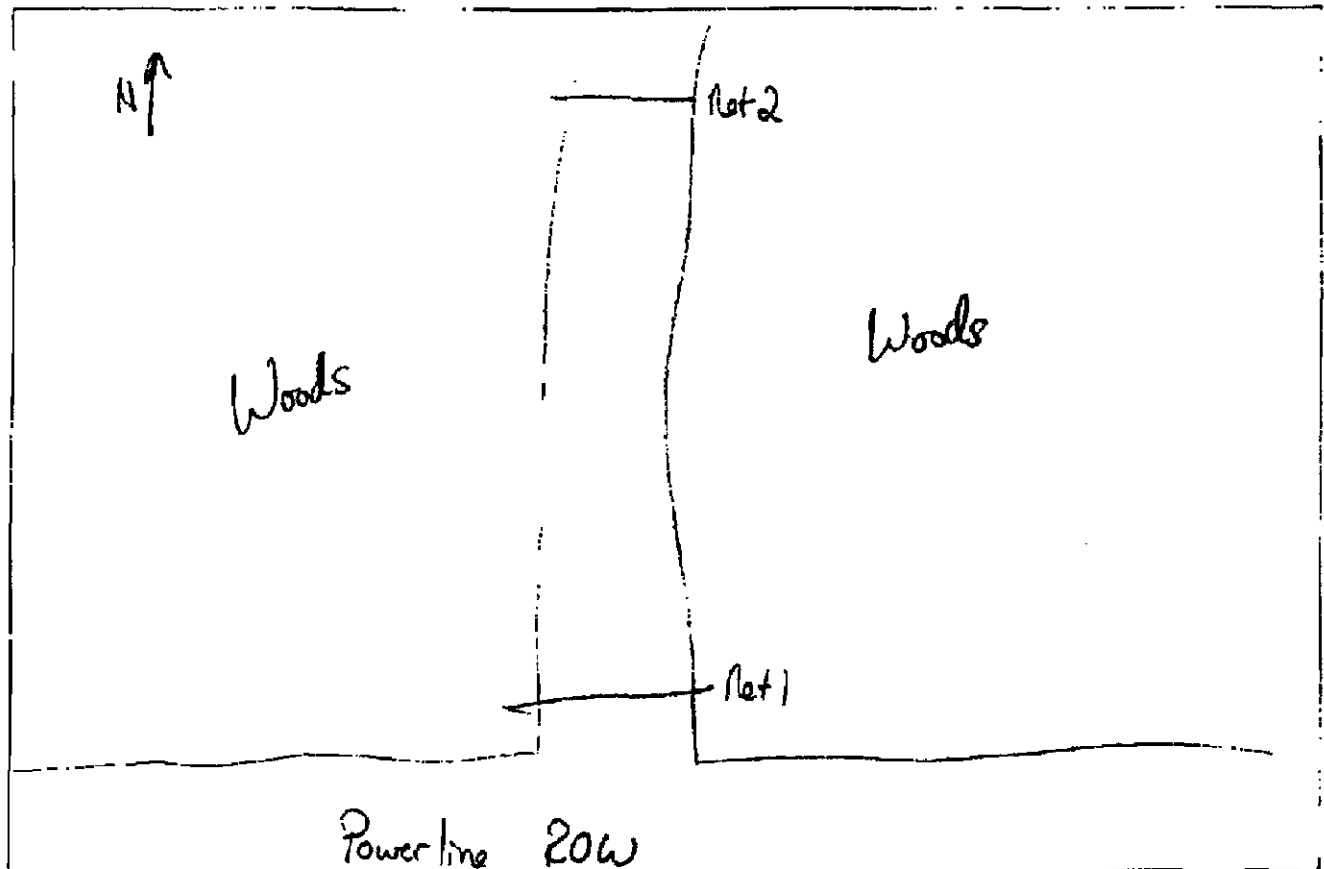
Average understory DBH (indicate units):

*3 in*Estimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-OH-5213Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
No PREs				

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-MN-OH-581BPage 1 of 1**WEATHER DATA**Date: 20 June 2008Biologists: B. Steffen J. HammersleyCounty: MuskingumState: OHQuad: NorwichProject Name: REX East 2008Project Number: 1786.002

Estimated Moon Phase: new

 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	64	1-3	E	No	0%	
2130	64	1-3	E	No	0%	
2200	62	1-3	SE	No	0%	
2230	62	1-3	E	No	0%	
2300	64	1-3	E	No	0%	
2330	64	1-3	E	No	0%	moon behind tree line
0000	64	1-3	SE	No	0%	" " "
0030	64	1-3	E	No	0%	" " "
0100	64	1-3	SE	No	0%	" " "
0130	64	1	N/A	No	0%	" " "
0200	62	1	N/A	Yes	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEL-MN-04-581BPage 1 of 2

BAT CAPTURE DATA SHEET

Date: 20 June 2008 Biologists: B. Slater, J. HammerleyCounty: Muskegon State: OH Quadrangle: NexichProject Name: LEX East 2008 Project Number: 1786002Net 1 Size: width 9m height 6m Net 2 Size: width 9m height 6mSite Description/Comments: Both nets across a maintained ROW, ~ 250 ft apartNet Up Time: 2110Net Down Time: 0210

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	2	2120	2	A	F	L	11.5	41.6	—	<i>Lasiurus borealis</i>	+
2	2	2210	3m	A	F	P	7.0	38.8	—	<i>Myotis lucifugus</i>	+
3	2	2250	3m	A	F	P	7.0	38.1	—	<i>Myotis lucifugus</i>	+
4	2	2320	4m	A	F	P	10.0	29.2	—	<i>Myotis lucifugus</i>	+
5	2	2340	4m	A	F	P	10.0	37.9	—	<i>Myotis lucifugus</i>	+
6	2	2340	1m	A	F	L	15.0	41.3	—	<i>Lasiurus borealis</i>	+
7	2	2350	5m	A	F	L	9.0	36.6	—	<i>Myotis septentrionalis</i>	+
8	2	2350	2m	A	M	NR	9.0	37.2	—	<i>Myotis lucifugus</i>	+
9	2	2406	3m	A	F	P	9.5	37.2	—	<i>Myotis lucifugus</i>	+

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

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[illegible]

Site Name/Number: TEH-MN-OH-581BPage 1 of 1**WEATHER DATA**Date: 22 June 2008Biologists: B. Steffen, J. HammorsleyCounty: MuskingumState: OHQuad: NorwichProject Name: PEX East 2008Project Number: 1786.002Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	66	1-3	SE	No	70%	
2130	64	41	N/A	No	100%	
2200	64	41	N/A	No	100%	
2230	64	41	N/A	No	100%	
2300	62	41	N/A	No	100%	
2330	62	41	N/A	No	100%	
0000	60	41	N/A	No	100%	
0030	60	41	N/A	No	100%	
0100	60	41	N/A	No	100%	
0130	58	41	N/A	No	100%	
0200	58	41	N/A	No	100%	

*Use the following guidelines to determine wind speed:

- | | |
|-----------|--|
| < 1 mph | calm; smoke rises vertically; no perceivable movement |
| 1-3 mph | smoke drift shows wind direction; barely moves tree leaves |
| 4-7 mph | wind felt on face; leaves rustle; small twigs move |
| 8-12 mph | leaves and small twigs in constant motion; blows up dry leaves |
| 13-18 mph | moves small branches; raises dust |

Site Name/Number: IEH-MN-OH-581BPage 1 of 2**BAT CAPTURE DATA SHEET**Date: 22 June 2008 Biologists: B. Skiffen, J. HammersleyCounty: Muskingum State: OH Quadrangle: NorwichProject Name: REX East 2008 Project Number: 1786.002Net 1 Size: width 9m height 6m Net 2 Size: width 9m height 6mSite Description/Comments: Both nets across a maintained ROW, ~ 250 ft apartNet Up Time: 2115Net Down Time: 0215

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	1	22:10	1.5	A	M	NR	7.5	31.1	—	<i>Myotis lucifugus</i>	
2	1	22:16	2m	A	F	L	6.0	34.0	—	<i>Myotis septentrionalis</i>	
3	2	22:20	3m	A	M	NR	7.5	39.0	—	<i>Myotis lucifugus</i>	
4	1	23:20	1.5m	A	F	P	21.5	46.5	—	<i>Eptesicus fuscus</i>	
5	2	23:20	4m	A	F	P	9.0	38.0	—	<i>Myotis lucifugus</i>	
6	2	23:30	3m	A	F	P	21.5	46.1	—	<i>Eptesicus fuscus</i>	
7	2	23:50	2.5m	A	M	NR	8.5	33.8	—	<i>Myotis lucifugus</i>	
8	1	02:00	2m	A	F	Lac	14.5	42.6	—	<i>Lasiurus borealis</i>	
9	2	01:00	3m	J	M	Scrot	11.5	38.5	—	<i>Lasiurus borealis</i>	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

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[illegible]

Site Name/Number: TEH-MN-OH-582B ^{NOB}Page 1 of 2

NET SITE DESCRIPTION

Date: 20, 22 June 2008 Biologists: S. Williams, G. JanosCounty: Muskingum State: Ohio Quad: NowichProject Name: Rex-East Project Number: 1786.002 001UTM Zone: 17 S GPS Waypoint Name: TEMNOH582BEasting: 4 2 7 9 7 5Northing: 4 4 1 7 2 4 1Comments (If photos taken, include direction camera was facing): Both nets across Buffalo Creek

STREAM NAME:

Bank Height (indicate units): 6'Channel Width (indicate units): 35'Stream Width (indicate units): 25'Substratum: rock, sand, pebbleAverage Water Depth (indicate units): 2.5'Turbidity: moderate-lowPresence of open flyway above stream? YES

VEGETATION:

Estimated % Canopy Closure: Net 1 = 10% Net 2 = 85%

Dominant canopy species (at least 3; scientific names; spell out):

Platanus occidentalis, Juglans nigra, Quercus velutina

Average canopy diameter at breast height (DBH; indicate units):

26"

Dominant understory species (at least 3; scientific names; spell out):

Acer rubrum, Acer saccharum, Aesculus glabra

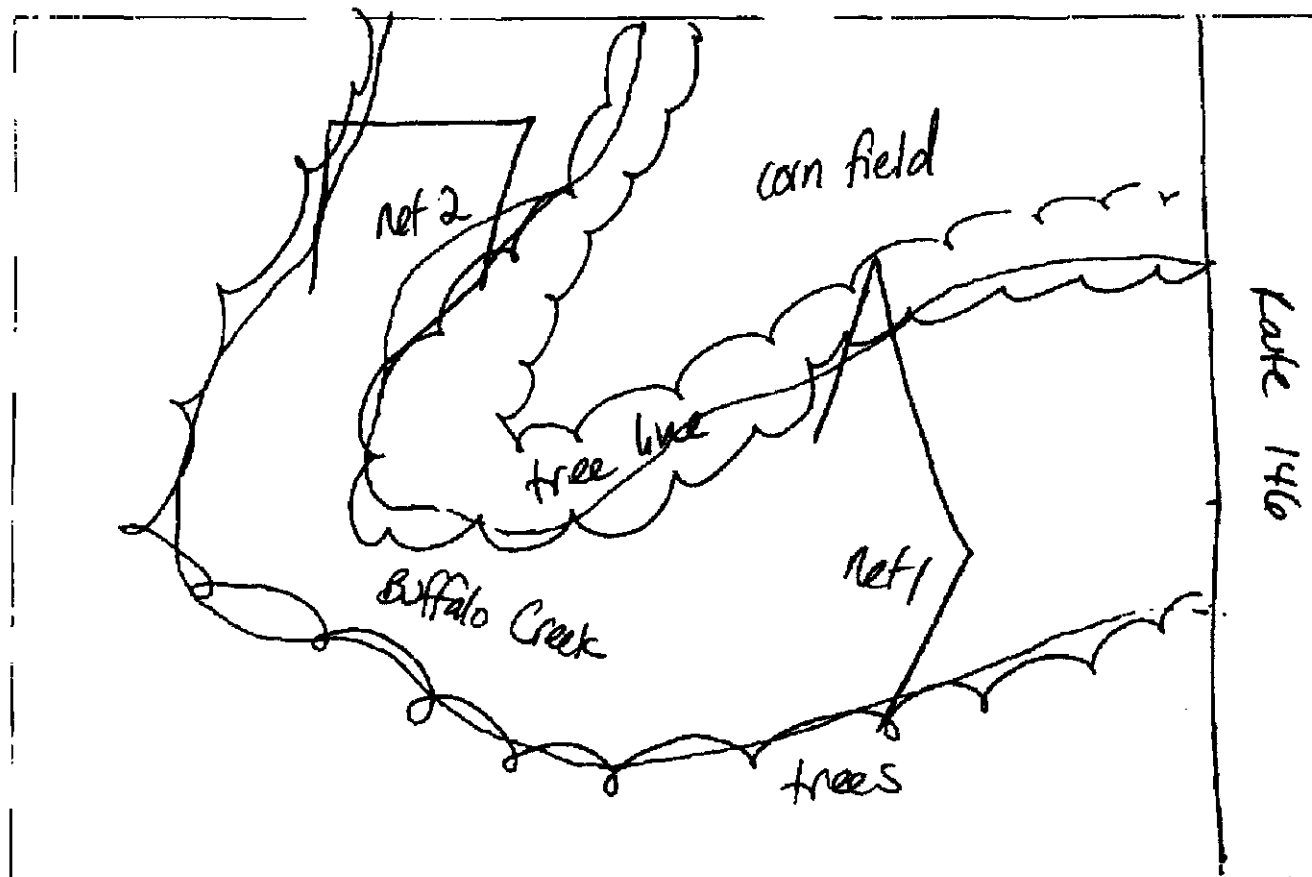
Average understory DBH (indicate units):

12"Estimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-01-5828^APage 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
<i>Quercus alba</i>	36"	live	35%	couple of large branches w/ cavities

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-MN-OH-5828^APage 1 of 1

WEATHER DATA

Date: 20 June 2008 Biologists: S. Williams, G. JanosCounty: Muskingum State: Ohio Quad: NorwichProject Name: Rex East Project Number: 1786.002.001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ $\textcircled{\text{full}}$

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	62°	0	N/A	N	0%	
2130	60°	0	N/A	N	0%	
2200	60°	0	N/A	N	0%	
2230	60°	0	N/A	N	0%	
2300	60°	0	N/A	N	0%	
2330	60°	0	N/A	Y	0%	
0000	59°	0	N/A	Y	0%	
0030	59°	0	N/A	Y	0%	
0100	58°	0	N/A	Y	0%	
0130	58°	0	N/A	Y	0%	
0200	57°	<1 mph	N/A	Y	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-04-5828^{BS}

Page 1 of 2

BAT CAPTURE DATA SHEET

Date: 20 June 2008 Biologists: S. Williams, G. Janos
 County: Muskegon State: Ohio Quadrangle: Norwich
 Project Name: Rex-East Project Number: 1786.002-001
 Net 1 Size: width 42' height 30' Net 2 Size: width 30' height 30'
 Site Description/Comments: Net 1 (42'x30' 3 tiers) and Net 2 (30'x30' 3 tiers)
across Buffalo Creek

Net Up Time: 2100 Net Down Time: 0200

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	2	2120	3.5	A	M	N	7.5	38.0	-	Myotis lucifugus	
2	2	2135	6.5	A	F	P	8.5	32.5	-	Pipistrellus subflavus	
3	2	2135	6.5	A	F	P	7.5	33.0	-	Pipistrellus subflavus	
4	2	2135	3.0	A	M	N	7.0	39.5	-	Myotis lucifugus	
5	2	2135	4.0	A	F	L	16.5	48.0	-	Eptesicus fuscus	
6	1	2210	1.0	A	M	N	14.0	41.0	-	Lasiurus borealis	
7	1	2230	0.5	A	M	N	6.0	34.5	-	Pipistrellus subflavus	
8	1	2230	8.5	A	F	P	9.0	34.0	-	Pipistrellus subflavus	
9	1	2230	5.0	A	P	P	16.0	41.5	-	Lasiurus borealis	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

[illegible]

Site Name/Number: TEH-MN-OH-5028^APage 1 of 1

WEATHER DATA

Date: 22 June 2008Biologists: S. Williams, G. JanosCounty: MuskegonState: OhioQuad: NorwichProject Name: Rex-EastProject Number: 1786002001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	64	4-7	W	No	100%	
2200	63	4-7	W	No	100%	
2300	63	<1	N/A	No	100%	
0000	60	<1	N/A	No	80%	
0100	59	<1	N/A	No	90%	
0200	57	<1	n/a	yes	50%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MAV-OH-5828^{as}Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 28 June 2008 Biologists: S. Williams, G. JanosCounty: Madison State: Ohio Quadrangle: NorwichProject Name: Rex East Project Number: 1786.002-001Net 1 Size: width 42' height 30' Net 2 Size: width 30' height 30'Site Description/Comments: Net 1 (42'x30' 3 tiers) and Net 2 (30'x30' 3 tiers)
Access Buffalo CreekNet Up Time: 2100Net Down Time: 0200

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	1	21:45	3.0	A	M	N	7.5	38.0		<i>Myotis lucifugus</i>	
2	2	21:00	7.0	A	F	L	19.0	48.5		<i>Eptesicus fuscus</i>	
3	2	22:00	1.0	A	M	N	12.5	39.5		<i>Lasiurus borealis</i>	
4	1	22:05	0.5	A	F	P	9.0	34.5		<i>Pipistrellus subflavus</i>	
5	1	22:15	8.0	A	M	N	7.0	36.5		<i>Myotis lucifugus</i>	
6	2	22:25	4.0	A	F	P	10.5	37.5		<i>Myotis lucifugus</i>	
7	2	22:25	8.5	A	F	P	11.0	37.0		<i>Myotis septentrionalis</i>	
8	2	22:40	6.0	A	M	N	6.5	35.5		<i>Myotis lucifugus</i>	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

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Site Name/Number: TEH-MN-OH-583A (unit TEH-OH-27.0
site 5)Page 1 of 2**NET SITE DESCRIPTION**Date: 20 June 2008 Biologists: L. Winhold + M. FarmerCounty: Muskingum State: Ohio Quad: NorwichProject Name: REX East Project Number: 1786.002-001UTM Zone: 17 S GPS Waypoint Name: TE MN OH 583AEasting: 4 2 8 5 0 1Northing: 4 4 1 7 5 7 9Comments (If photos taken, include direction camera was facing): no photos
netted tract OH-MK-205.000 + OH-MK-205.501STREAM NAME: Williams ForkBank Height (indicate units): 2mChannel Width (indicate units): 14mStream Width (indicate units): 14m (though mostly sand but at net)Substratum: sand + gravelAverage Water Depth (indicate units): 1mTurbidity: cloudy in deeper spots. clear mostly. some currentPresence of open flyway above stream? yes**VEGETATION:**Estimated % Canopy Closure: Net 1 = 70 Net 2 = 30

Dominant canopy species (at least 3; scientific names; spell out):

Fraxinus pennsylvanicus, Platanus occidentalis, Aesculus glabra
Average canopy diameter at breast height (DBH; indicate units): 40cm

Dominant understory species (at least 3; scientific names; spell out):

Acer negundo, Robinia pseudoacacia, Aesculus glabra
Average understory DBH (indicate units): 5cmEstimated density of understory vegetation: high moderate low

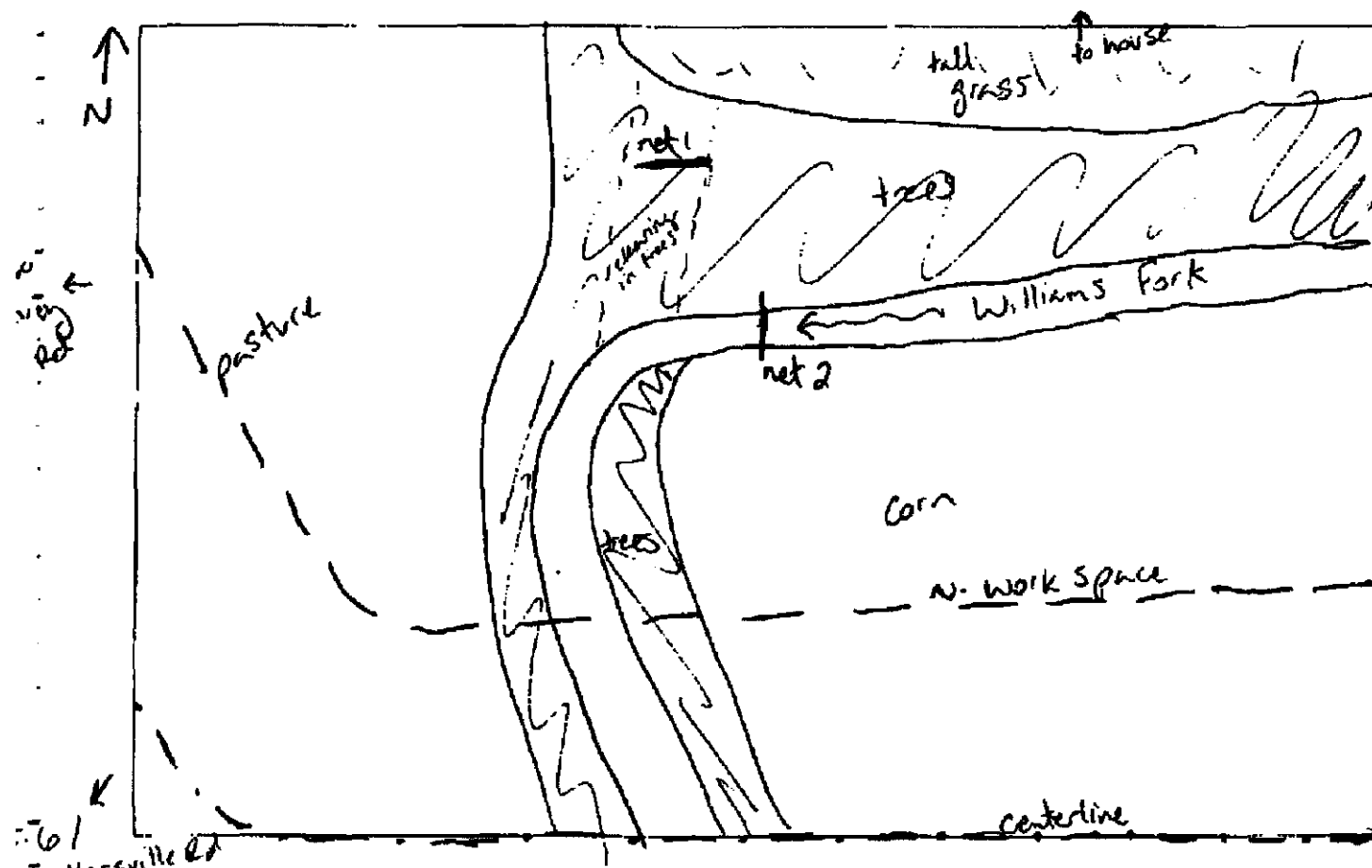
Site Name/Number: TEA-MN-OH-583A

Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments

Drawing of net site. Include north arrow & location of each net.



Site Name/Number: TEH-MN-OH-583APage 1 of 1**WEATHER DATA**Date: 20 June 2008Biologists: L. Winhold + M. FarmerCounty: MuskingumState: OhioQuad: NorwichProject Name: REX EastProject Number: 1786.002-001Estimated Moon Phase: new ¼ ½ ¾ (full) nearly

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
21:00	64	< 1	—	no	15	
21:30	63	< 1	—	no	10	
22:00	62	< 1	—	no	0	
22:30	61	< 1	—	no	0	lightning in distant South
23:00	61	< 1	—	no	0	lightning in distant South
23:30	60	< 1	—	yes	0	occasional lightning in distant S. moon behind trees
24:00	59	< 1	—	yes	0	
00:30	59	< 1	—	yes	0	foggy
01:00	58	< 1	—	yes	0	foggy
01:30	58	< 1	—	yes	0	foggy
02:00	58	< 1	—	yes	0	foggy

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 20 June 2008

Biologists: L. Winhebel & M. Farmer

County: Muskingum

State: Ohio

Quadrangle: Norwich

Project Name: REF East

Project Number: 1786.002-001

Net 1 Size: width 12m height 7m

Net 2 Size: width 12m height 7m

Site Description/Comments: Forested riparian corridor in aq land

Net 1 across opening in woods connecting stream to farm house
Net 2 across stream

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEL-MN-OH-583APage 1 of 1**WEATHER DATA**Date: 6.25.08Biologists: Sameray, GardnerCounty: MuskingumState: OHQuad: NorwichProject Name: REX EastProject Number: 1796.002-001

Estimated Moon Phase: new ¼ ½ (¾) full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	69°	<1	—	N	100%	
2130	68°	<1	—	N	100%	
2200	68°	<1	—	N	100%	
2230	66°	<1	—	N	100%	
2300	66°	<1	—	N	100%	
2330	66°	<1	—	N	100%	
0000	66°	<1	—	N	100%	
0030	66°	<1	—	N	100%	
0100	66°	<1	—	N	100%	
0130	65°	1-3	W	N	100%	
0200	65°	4-7	W	N	100%	storms in area

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MAL-OH-583APage 1 of 1

BAT CAPTURE DATA SHEET

Date: 6.25.08 Biologists: Sawyer, GardnerCounty: Muskingum State: OH Quadrangle: NorwichProject Name: REX East Project Number: 1786-002-001Net 1 Size: width 12m height 7m Net 2 Size: width 12m height 7mSite Description/Comments: Forested riparian corridor in ag landAsst access opening in woods connecting stream to farm houseNet 2 access stream

Net Up Time: 2100					Net Down Time: 0200						
Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/ No.	Species (scientific name spell out)	Comments
1	2	2140	6.0	A	M	N	5.5	34.5	---	<u>Pteromyotis subflavus</u>	
2	1	2235	1.0	J	F	N	11.0	40.0	---	<u>Lasiurus borealis</u>	
3	2	2240	4.5	A	F	L	21.0	50.0	---	<u>Eptesicus fuscus</u>	
4	1	0020	5.0	A	M	TD	14.0	40.0	---	<u>Lasiurus borealis</u>	bat uterus
5	1	0020	5.5	A	F	L	14.5	41.0	---	<u>Lasiurus borealis</u>	
							</				

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

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Roost used by Indiana bat 172.177 in Clinton County, Ohio.



Appendix C. Photographs of Roost Used by Indiana Bat 172.177

Page 1 of 1

BAT CAPTURE DATA SHEET

Site Description/Comments: Both nets are across a fence rd in a wood lot between an ag field + a road

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-625A

BR-005A

Page 1 of 1

WEATHER DATA

Date: 6.30.08Biologists: Sameray, GardnerCounty: BostonState: OHQuad: HunterProject Name: REX EastProject Number: 1786.003-001Estimated Moon Phase: new 1/4 1/2 3/4 full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	60°	1-3	W	N	100%	
2130	60°	1-3	W	N	100%	
2200	60°	<1	W —	N	100%	
2230	58°	<1	—	N	100%	
2300	58°	<1	—	N	100%	
2330	58°	<1	—	N	100%	
0000	58°	<1	—	N	100%	
0030	58°	<1	—	N	100%	
0100	58°	<1	—	N	100%	
0130	58°	<1	—	N	100%	
0200	58°	<1	—	N	100%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Page 1 of 1

BAT CAPTURE DATA SHEET

Biologists: Samoray, Gardner

County: Benton

Project Name: BEX East

Net 1 Size: width 18' height 30'

Site Description/Comments: Both sets are across a fence rd in a wooded area between a eg. field + road

Get Up Time: 2160

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

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weather

WEATHER DATA

Project No. 1786.002-601 Project Name REX East
 Date 6.29.08 Investigator Initials Samalay, Gardner
 Net Site Location: County Belmont State OH Quad: Hunter
 Site Number: — Site Name: TEH-MN-OH-625A BR-005A

Moon Phase: new

1/4

1/2

3/4

full

Time (2400 h)	Temp (C)	Wind Speed*	Wind Direction	Moon Visibility	% Cloud Cover	Comments
2100	65°	<1	—	N	60%	
2130	64°	<1	—	N	50%	
2200	64°	<1	—	N	50%	
2230	64°	<1	—	N	50%	
2300	63°	<1	—	N	30%	
2330	63°	<1	—	N	30%	
0000	63°	<1	—	N	30%	
0030	63°	<1	—	N	0%	
0100	63°	<1	—	N	0%	
0130	63°	<1	—	N	0%	
0200	63°	<1	—	N	0%	

*Use the following guidelines to determine wind speed:

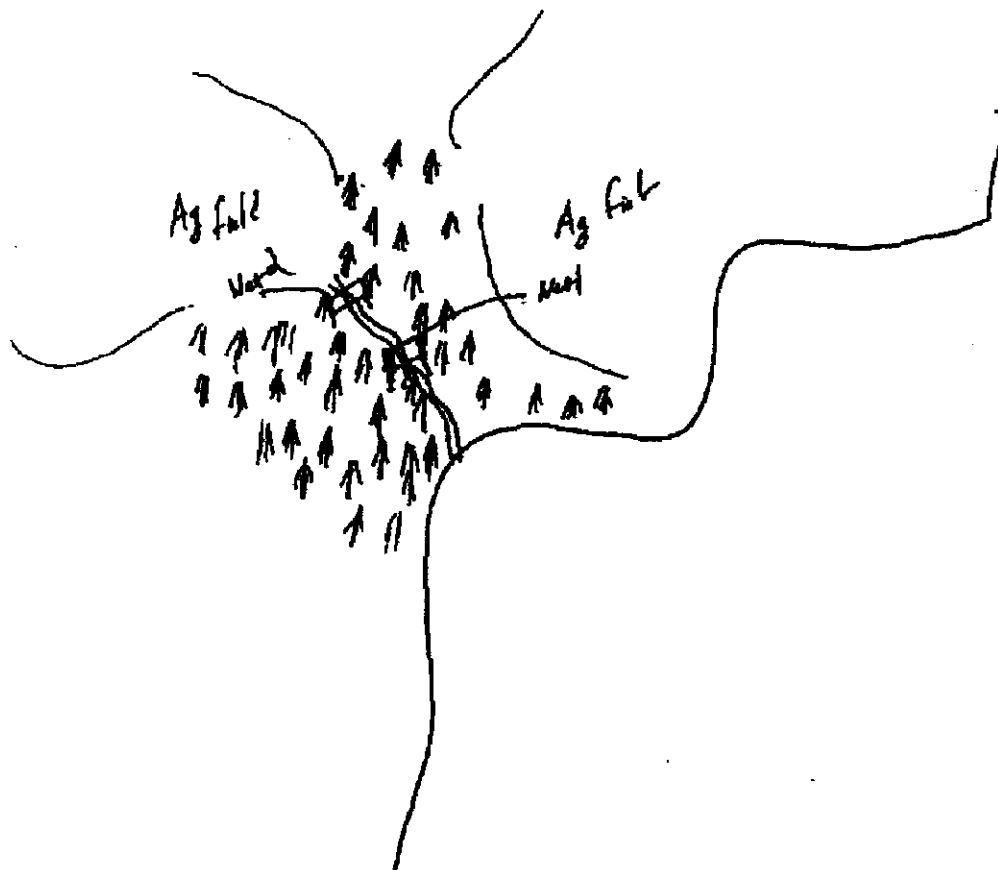
< 1 mph	calm; smoke rises vertically; no perceivable movement
1-3 mph	smoke drift shows wind direction; barely moves tree leaves
4-7 mph	wind felt on face; leaves rustle; small twigs move
8-12 mph	leaves and small twigs in constant motion; blows up dry leaves
13-18 mph	moves small branches; raises dust

TEH-MN-OH-BK-OOSA

Description of potential Indiana bat roost trees visible from net site

Tree Species	Est. dbh	Live or dead	Est. % loose bark	Comments
<u>Tilia americana</u>	75cm	live	5%	2 large cavities
<u>Carya ovata</u>	40cm	live	50%	
<u>Carya ovata</u>	50cm	live	50%	
<u>Carya ovata</u>	50cm	live	70%	

↑N



NET SITE DESCRIPTION

TEH-MN-OH-BR-005A

Project: REX East Date: 6.29.08County, State: Belmont
Belmont, OH Name: TEH-MN-OH-BR-005AQuad: Hunter Stream/Drainage: —UTM Zone: 17S Biologists: Somers, GardnerEasting: 4 9 0 3 8 9Northing: 4 4 1 5 8 9 4

Comments (provide site diagram on reverse with net locations):

Burnsville Permits: TEH-MN-OH-BR-005A

STREAM:

Bank Height:

Channel Width:

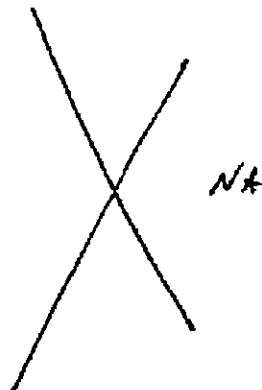
Stream Width:

Substratum:

Average Water Depth:

Turbidity:

Presence of open flyway above stream?



VEGETATION:

Estimated % Canopy Closure:

Dominant canopy species (3):

Quercus alba, Carya ovata, Quercus rubra

Average canopy DBH:

40cm

Dominant understory species (3):

Aesculus glabra, Acer saccharum, Crataegus sp.

Average understory DBH:

7cmEstimated density of understory vegetation: high moderate low

Herbaceous species:

—

TEH-MNH-003A

Page 1 of 1

BAT CAPTURE DATA SHEET

Biologists: J. Williams, G. Santos

State: Ohio

Quadrangle: Barnesville

Project Number: 1786.002-001

Net 1 Size: width 80' height 30'

Net 2 Size: width 18' height 20'

Site Description/Comments: Net 1 (30' x 30' 3 tiers) and Net 2 (18' x 20' 2 tiers)
across grass and off of curby Rd T12

Net Up Time: 2/15

Net Down Time: 02:15

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
NO BATS CAPTURED											

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-003APage 1 of 1

WEATHER DATA

Date: 30 June 2008Biologists: S. Williams, G. JanosCounty: BelmontState: OhioQuad: BarnesvilleProject Name: Rex-EastProject Number: 1786-002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2115	59	<1	n/a	no	100%	
2145	58	1-3	W	no	100%	
2215	58	<1	n/a	no	20%	
2245	58	<1	n/a	no	0%	
2315	58	<1	n/a	no	30%	
2345	58	<1	n/a	no	50%	
0015	58	<1	n/a	no	60%	
0045	58	<1	n/a	no	100%	
0115	58	<1	n/a	no	100%	
0145	58	<1	n/a	no	100%	
0215	58	<1	n/a	no	100%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 29 June 2008

County: Belmont State: Ohio Quadrangle: Barnesville

Project Name: Rex-East Project Number: 1786-002-001

Net 1 Size: width 30' height 30'

Site Description/Comments: Net 1 (90' x 30' 3 bars) and Net 2 (18' x 20' 2 bars)
across grass road off of Quarry Rd T12

Net Up Time: 2715

Net Down Time: 0215

Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
NO BATS CAPTURED											

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: JEH-MN-OH-003APage 1 of 1

WEATHER DATA

Date: 29 June 2008Biologists: S. Williams, M. FarmerCounty: BelmontState: OhioQuad: BarnesvilleProject Name: Rex-EastProject Number: 1786.002 201Estimated Moon Phase: new 1/4 $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2115	68	<1	n/a	no	50%	
2145	66	<1	n/a	no	50%	
2215	63	<1	n/a	no	0%	
2245	62	<1	n/a	no	0%	
2315	60	<1	n/a	no	0%	
2345	60	<1	n/a	no	0%	
0015	60	<1	n/a	no	0%	
0045	60	<1	n/a	no	0%	
0115	60	<1	n/a	no	0%	
0145	60	<1	n/a	no	0%	
0215	60	<1	n/a	no	0%	

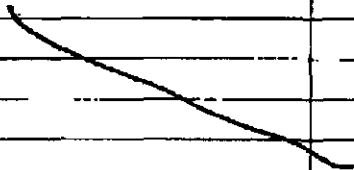
*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

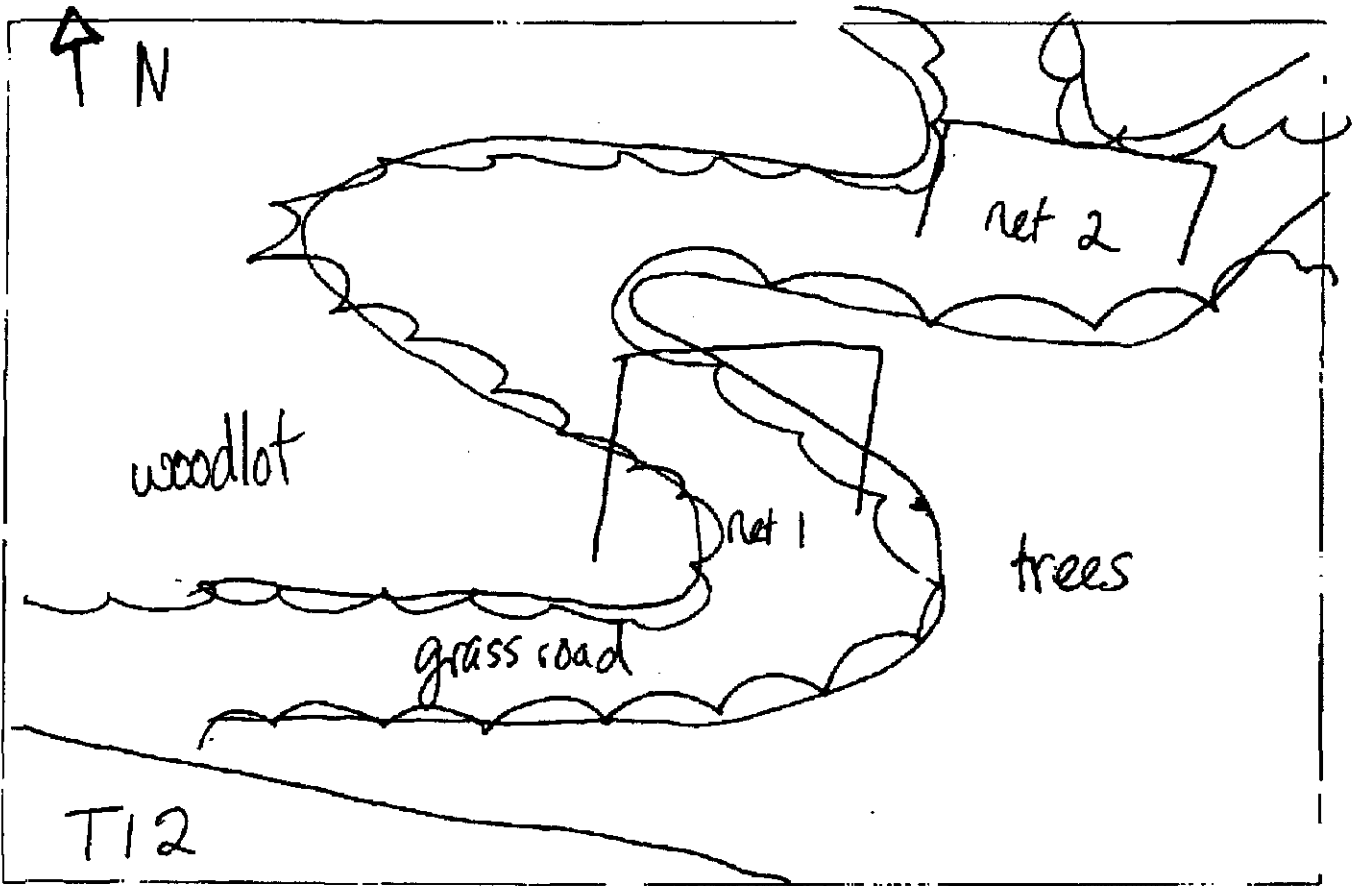
Site Name/Number: ^{DC} TEH-MN-OH-003A

Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
				

Drawing of net site. Include north arrow & location of each net.



Site Name/Number: TEH-MN-OH-003APage 1 of 2

NET SITE DESCRIPTION

Date: 29-30 June 2008 Biologists: S. Williams, M. Farmer, G. JanosCounty: Belmont State: Ohio Quad: BarnesvilleProject Name: Rex-East Project Number: 1786-002-001UTM Zone: 17S GPS Waypoint Name: TEMNOH003Easting: 4 8 7 4 2 9Northing: 4 4 1 6 7 7 9Comments (If photos taken, include direction camera was facing): Both
nets across grass road off of County Rd 712

STREAM NAME:

~~Bank Height (indicate units):~~~~Channel Width (indicate units):~~~~Stream Width (indicate units):~~ n/a~~Substratum:~~~~Average Water Depth (indicate units):~~~~Turbidity:~~~~Presence of open flyway above stream?~~

VEGETATION:

Estimated % Canopy Closure: Net 1 = 45% Net 2 = 30%

Dominant canopy species (at least 3; scientific names; spell out):

Acer saccharum, Quercus alba, Juglans nigra

Average canopy diameter at breast height (DBH; indicate units):

Acer saccharum, 11"

Dominant understory species (at least 3; scientific names; spell out):

Acer saccharum, Crataegus sp., Quercus alba

Average understory DBH (indicate units):

5"Estimated density of understory vegetation: high moderate low

Site Name/Number: TEH-MN-00001A

Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 27 June 2008 Biologists: B Steffen, J Hammersley

County: Belmont State: OH Quadrangle: Barnesville

Project Name: REX East 2008 Project Number: 1786.002

Net 1 Size: width 6m height 6m Net 2 Size: width 6m height 6m

Site Description/Comments: Both nets across a dirt road that dead ends @ Barnesville Reservoir

Net Up Time: 2115					Net Down Time: 0215						
Capture No.	Net No.	Time (military)	Height (m)	Age (A/J)	Sex (F/M)	Repro. Cond.	Weight (g)	RFA Length (mm)	Band Color/No.	Species (scientific name spell out)	Comments
1	2	2305	1.5 m	A	M	NR	6.5	38.1	OPBK 1206	Myotis sodalis	metal clamp band
2	1	0145	2.5 m	A	F	Lac	9.0	39.0	—	Myotis lucifugus	
3	1	0145	1.5 m	A	F	Lac	8.5	39.0	—	Myotis lucifugus	
4	2	0205	4 m	A	M	NR	7.5	37.2	—	Myotis septentrionalis	

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended
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Site Name/Number: TEH-MN-OH-001APage 1 of 1**WEATHER DATA**Date: 27 June 2008Biologists: B. Steffen, J. HammersleyCounty: BelmontState: OHQuad: BarnesvilleProject Name: REX East 2008Project Number: 1786-002Estimated Moon Phase: new $\frac{1}{4}$ 0 $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	74	4	N/A	No	60%	
2130	74	4	N/A	No	40%	
2200	72	4	N/A	No	40%	
2230	72	4	N/A	No	20%	
2300	72	4	N/A	No	20%	
2330	72	4	N/A	No	20%	
0000	70	4	N/A	No	10%	
0030	70	4	N/A	No	0%	
0100	70	4	N/A	No	30%	
0130	70	4	N/A	No	50%	
0200	70	4	N/A	No	100%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 26 June 2008

County: Belmont State: OH Quadrangle: Barnesville

Project Name: REX East 2008 Project Number: 786.002

Net 1 Size: width 6cm height 6cm

Site Description/Comments: Both nets across a dirt road that dead ends @ Barnesville Reservoir

Net Up Time: 2110

Net Down Time: 23:45 (closed due to rain/wind/lightning)

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-001APage 1 of 1**WEATHER DATA**Date: 26 June 2008Biologists: B. SteffenCounty: BelmontState: OHQuad: BarnesvilleProject Name: REX East 2008Project Number: 1786.002Estimated Moon Phase: new $\frac{1}{4}$  $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	72	41	N/A	No	100%	
2130	72	1-3	S	No	100%	
2200	72	41	N/A	No	100%	
2230	70	41	N/A	No	100%	
2300	70	1-3	S	No	100%	
2330	70	1-3	S	No	100%	
0000						called b/c of rain/wind/ lightning
0030						
0100						
0130						
0200						

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 25 June 2008

County: Belmont State: OH Quadrangle: Barnesville

Project Name: REX East 2008 Project Number: 786.002

Net 1 Size: width 6cm height 6cm


Net 2 Size: width 6cm height 6cm

Site Description/Comments: Both nets across a dirt road that dead ends @ Barnsville Reservoir.

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

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Site Name/Number: TEH-MN-OH-001APage 1 of 1**WEATHER DATA**Date: 25 June 2008Biologists: B. Steffen, J. HammersleyCounty: BelmontState: OHQuad: BarnesvilleProject Name: REX East 2008Project Number: 1786.002Estimated Moon Phase: new $\frac{1}{4}$  $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	70	41	N/A	No	100%	light sprinkles
2130	70	41	N/A	No	100%	"
2200	68	41	N/A	No	80%	
2230	68	41	N/A	No	20%	
2300	68	41	N/A	No	20%	
2330	66	41	N/A	No	40%	
0000	66	41	N/A	No	60%	
0030	66	41	N/A	No	100%	
0100	66	41	N/A	No	100%	
0130	68	1-3	SW	No	100%	
0200	68	1-3	SW	No	100%	light sprinkles

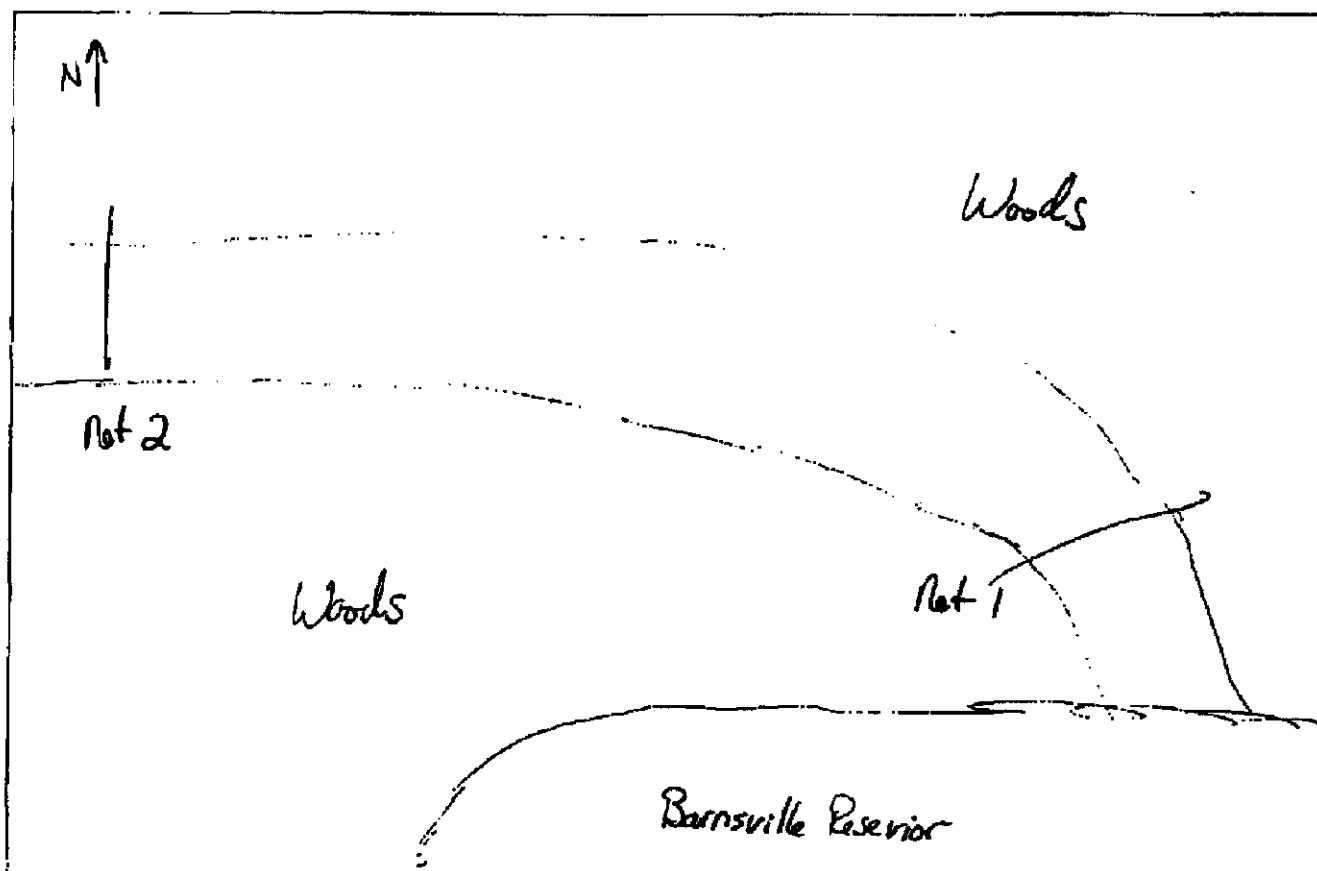
*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BR
 Site Name/Number: TEH-MU-04-001A
Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
No PRT				

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-MN-OH-001APage 1 of 2**NET SITE DESCRIPTION**Date: 25 June 2008 Biologists: B. Steffen, J. HammersleyCounty: Belmont State: OH Quad: BarnesvilleProject Name: PEX East 2008 Project Number: 1786.002UTM Zone: 17S GPS Waypoint Name: TEMN0H001AEasting: 4 8 4 6 3 0Northing: 4 4 1 8 1 9 6Comments (If photos taken, include direction camera was facing): Both nets across a dirt road that dead ends in the Barnesville reservoir.**STREAM NAME:**

Bank Height (Indicate units):

Channel Width (Indicate units):

Stream Width (Indicate units):

Substratum:

N/A

Average Water Depth (Indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:

Estimated % Canopy Closure: Net 1 = 60%

Net 2 = 40%

Dominant canopy species (at least 3; scientific names; spell out):

Juglans nigra, *Gleditsia triacanthos*, *Quercus imbricaria*

Average canopy diameter at breast height (DBH; indicate units):

20

Dominant understory species (at least 3; scientific names; spell out):

Juglans nigra, *Gleditsia triacanthos*, *Malus sylvestris*

Average understory DBH (Indicate units):

3

Estimated density of understory vegetation: high moderate low

BAT CAPTURE DATA SHEET

Date: 27 June 2008

Biologists: S. Williams, G. Santos

County: Belmont

State: Ohio

Quadrangle: Barnesville

Project Name: Rex-East

Project Number: 1786 002-001

Net 1 Size: width 30' height 30'

Net 2 Size: width 42' height 20'

Site Description/Comments: Net 1 (30' x 30' 3 bags) and Net 2 (42' x 20' 2 tiers)
located in interior of woodlot off of Johnson Edge Rd

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-000A ^{BK}Page 1 of 1

WEATHER DATA

Date: 27 June 2008Biologists: J. Williams, G. SanosCounty: BelmontState: OhioQuad: BarnesvilleProject Name: Rex-EastProject Number: 1786-002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2115	71	<1	n/a	no	100%	
2145	71	<1	n/a	no	100%	
2215	70	<1	n/a	no	100%	
2245	70	<1	n/a	no	100%	
2315	70	<1	n/a	no	60%	
2345	70	4-7	SW	no	60%	
0015	69	4-7	SW	no	60%	
0045	68	4-7	SW	no	80%	
0115	68	1-3	SW	no	80%	
0145	68	1-3	SW	no	80%	
0215	68	1-3	SW	no	80%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-04-000A

Page or

BAT CAPTURE DATA SHEET

Date: 26 June 2003

County: Belmont State: Ohio Quadrangle: Barnesville

Project Name: Rex East Project Number: 1786.002 001

Net 1 Size: width 30' height 30'
Net 2 Size: width 42' height 30'

Site Description/Comments: Net 1 (38' x 38' 3 tiers) and Net 2 (42' x 20' 2 tiers)
located in interior of woodlot off of Johnson Ridge Rd.

Rained art, nets closed @ 2315

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: ^{B2}TEH-MN-OH-000APage 1 of 1

WEATHER DATA

Date: 26 June 2008Biologists: S. Williams, M. FarmerCounty: BelmontState: OhioQuad: BarnesvilleProject Name: Rex-EastProject Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2115	71	1-3	NW	no	100%	
2145	72	4-7	NW	no	100%	
2215	71	4-7	NW	no	100%	lightening to the N
2245	68	4-7	NW	no	100%	heavy rain nets closed
2315	68	8-12	NW	no	100%	rained out

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 25 June 2008

Biologists: S. Williams, G. Jarvis

County: Belmont

State: Ohio

Quadrangle: Barnesville

Project Name: Rex-Fast

Project Number: 1786.002-001

Net 1 Size: width 30' height 30'

Net 2 Size: width 42' height 20'

Site Description/Comments: Net 1 (30' x 30' 3 fiers) and Net 2 (42' x 20' 2 fiers)
located in interior of woodland off of Johnson Cidsgy Rd

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-000APage 1 of 1**WEATHER DATA**Date: 25 June 2008Biologists: S. Williams, G. JanosCounty: BelmontState: OhioQuad: BarnesvilleProject Name: Rex-EastProject Number: 1786.002-001Estimated Moon Phase: new 1/4 1/2 3/4 full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	74	1-3	W	no	30%	
2130	73	1-3	W	no	50%	
2200	72	1-3	W	no	100%	
2230	72	1-3	W	no	100%	wind gusts @ 4-7 mph
2300	72	4-7	W	no	100%	
2330	72	4-7	W	No	100%	
0000	72	4-7	W	No	100%	
0030	72	4-7	W	No	100%	
0100	72	4-7	W	No	100%	
0130	70	4-7	W	No	100%	
0200	70	4-7	W	no	100%	

*Use the following guidelines to determine wind speed:

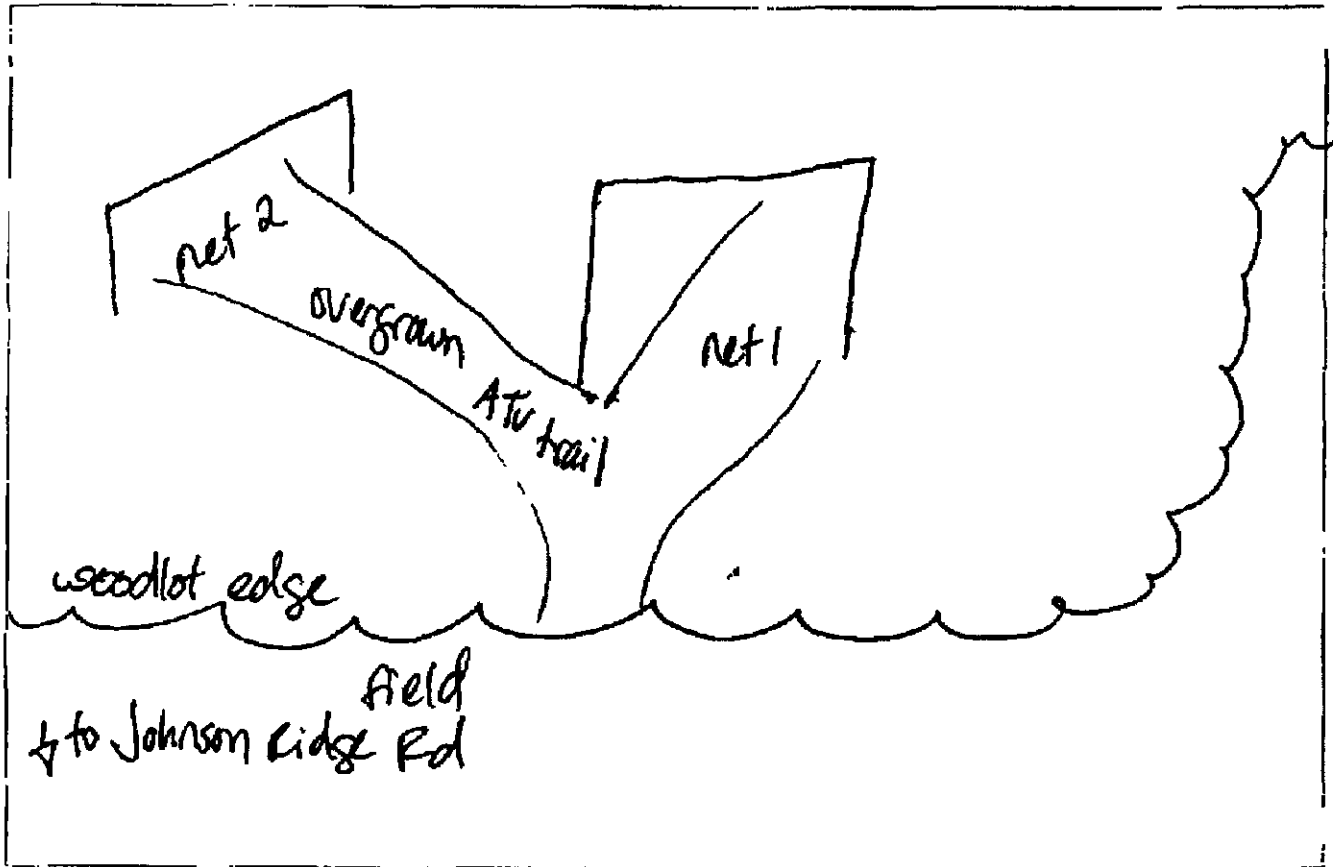
- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: ^{BR} TEH-MN-OH^V-000A

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
		n/a		

Drawing of net site. Include north arrow & location of each net.



Site Name/Number: ^{BR} TEH-MN-OH-000 A (Barnesville Route) Page 1 of 2

NET SITE DESCRIPTION

^{278W}
Date: 25th June 2008 Biologists: S. Williams, G. Santos, M. Farmer

County: Belmont State: Ohio Quad: Barnesville

Project Name: Rex-East Project Number: 1786-002-001

UTM Zone: 17S GPS Waypoint Name: TEMNOH000

Easting: 4 8 3 7 2 5

Northing: 4 4 1 8 1 3 1

Comments (If photos taken, include direction camera was facing): Both road nets located in interior off woodland off of Johnson Ridge Rd

STREAM NAME:

Bank Height (Indicate units):

Channel Width (Indicate units):

Stream Width (Indicate units): N/A

Substratum:

Average Water Depth (Indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:

Estimated % Canopy Closure: Net 1 = 90% Net 2 = 60%

Dominant canopy species (at least 3; scientific names; spell out):

Prunus serotina, Acer saccharum, Liriodendron tulipifera

Average canopy diameter at breast height (DBH; indicate units):

13"
Dominant understory species (at least 3; scientific names; spell out):

Acer saccharum, Sassafras albidum, Crataegus sp.

Average understory DBH (Indicate units):

4"
Estimated density of understory vegetation: high moderate low

BAT CAPTURE DATA SHEET

Date: 7.2.08 Biologists: Samsara, Gardner
County: Noble State: OH Quadrangle: Quakee City
Project Name: REF East Project Number: 1776.002-001
Net 1 Size: width 60' height 30' Net 2 Size: width 42' height 20'
Site Description/Comments: Both nets are perpendicular to tree line + extend out into open field
Net 1 is also across a small creek ~ 6" deep

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-614APage 1 of 1**WEATHER DATA**Date: 7.2.08Biologists: Samoray, GardnerCounty: NobleState: OHQuad: Quaker CityProject Name: REX EastProject Number: 1796-002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	70°	1-3	W	N	100%	
2130	70°	1-3	W	N	100%	
2200	69°	<1	—	N	100%	
2230	69°	1-3	W	N	80%	
2300	69°	<1	—	N	0%	
2330	69°	1-3	W	N	10%	
0000	69°	1-3	W	N	30%	
0030	69°	1-3	W	N	80%	
0100	69°	1-3	W	N	80%	
0130	69°	1-3	W	N	80%	
0200	69°	1-3	W	N	100%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 7.1.08 Biologists: Samsay, Gardner

County: Noble State: OH Quadrangle: Quaker City

Project Name: REX East Project Number: 1786.002-001

Net 1 Size: width 60' height 30'

Site Description/Comments: Both nets are perpendicular to tree line & extend out into open field. Net 1 is also across a small wash ~ 6 in. deep

Net Up Time: 2:00

Net Down Time: 0.000

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEP-MN-OH-614APage 1 of 1**WEATHER DATA**Date: 7.1.08 Biologists: Samaray, GacknerCounty: Noble State: OH Quad: Quaker CityProject Name: REX-East Project Number: 1786-002-001Estimated Moon Phase: new ☒ 1/4 1/2 3/4 full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	67°	<1	—	N	30%	
2130	66°	1-3	W	N	30%	
2200	64°	<1	W —	N	5%	
2230	63°	<1	W —	N	5%	
2300	63°	<1	W —	N	5%	
2330	63°	<1	W —	N	5%	
0000	62°	<1	W —	N	0%	
0030	60°	<1	—	N	0%	
0100	60°	<1	—	N	0%	
0130	59°	<1	—	N	0%	
0200	59°	<1	—	N	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-NW-6H-614A

Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
			NO PRTs present	

Drawing of net site. Include north arrow & location of each net.



Site Name/Number: TEA-MN-OH-614APage 1 of 2**NET SITE DESCRIPTION**Date: 7.1.05 Biologists: Samoray, GardnerCounty: Noble State: OH Quad: Quaker CityProject Name: REX East Project Number: 1786.002-001UTM Zone: 17S GPS Waypoint Name: MN-OH-614AEasting: 4 7 5 0 1 6 (WGS 84)Northing: 4 4 2 2 0 1 3

Comments (If photos taken, include direction camera was facing): _____

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

NA

VEGETATION:Estimated % Canopy Closure: Net 1 = 5% Net 2 = 5%

Dominant canopy species (at least 3; scientific names; spell out):

~~Gleditsia~~ Robinia pseudoacacia ^{altissima} ~~Ailanthus altissima~~ Pinus serotina

Average canopy diameter at breast height (DBH; indicate units):

20cm

Dominant understory species (at least 3; scientific names; spell out):

Poa Cornus florida Rubus occidentalisAverage understory DBH (indicate units): 8cmEstimated density of understory vegetation: high moderate low

BAT CAPTURE DATA SHEET

Date: 6.28.08 Biologists: Sammy, Gardner
County: Guernsey State: OH Quadrangle: Valley
Project Name: REX East Project Number: 178.003-001
Net 1 Size: width 42' height 30'
Net 2 Size: width 18' height 20'

Site Description/Comments: Plot 1 is along a boundary on the north edge of a powerline ROW & across an opening between the powerline ROW & an egg field. Plot 2 is across an ATV trail in a wood lot also on the north edge of the powerline ROW.

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-600APage 1 of 1**WEATHER DATA**Date: 6.28.08Biologists: Samoray, GardnerCounty: GuernseyState: OHQuad: ValleyProject Name: REX EastProject Number: 1786.002-001Estimated Moon Phase: new ¼ ½ ¾ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	66°	<1	—	N	100%	
2130	66°	<1	—	N	100%	
2200	66°	1-3	SW	N	100%	
2230	66°	1-3	SW	N	100%	
2300	66°	1-3	SW	N	100%	
2330	66°	1-3	SW	N	100%	
0000	66°	1-3	SW	N	100%	
0030	67°	1-3	SW	N	100%	
0100	67°	1-3	SW	N	100%	
0130	67°	1-3	SW	N	100%	
0200	67°	1-3	SW	N	100%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 6-27-08 Biologists: Samoray, Gardner

County: Guersey State: OH Quadrangle: Vally

Project Name: REX East Project Number: 1786.002-00

Net 1 Size: width 42' height 30'

Net 2 Size: width 18' height 20'

Site Description/Comments: Net 1 is along a tree line on the north edge of a powerline ROW & across an opening between the powerline ROW & an ag field. Net 2 is across an ATV trail in a wood lot also on the north edge of the powerline ROW

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-600APage 1 of 1**WEATHER DATA**Date: 6.27.08 Biologists: Samoray, GardnerCounty: Crawford State: OH Quad: ValleyProject Name: REX East Project Number: 1786.002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	76°	1-3	SW	N	80%	
2130	75°	1-3	SW	N	50%	
2200	75°	<1	—	N	10%	
2230	74°	1-3	SW	N	10%	
2300	74°	1-3	SW	N	0%	
2330	74°	1-3	SW	N	0%	
0000	72°	1-3	SW	N	10%	
0030	71°	1-3	SW	N	20%	
0100	71°	1-3	SW	N	75%	
0130	70°	1-3	SW	N	100%	
0200	70°	1-3	SW	N	100%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-OH-600APage 1 of 1**WEATHER DATA**Date: 6.26.08Biologists: Samaray, GardnerCounty: GuernseyState: OHQuad: ValleyProject Name: REX EastProject Number: 1786-002-001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	73°	<1	—	N	100%	
2130	72°	1-3	W	N	100%	
2200	72°	8-12	W	N	100%	nets closed
2230	72	8-12	W	N	100%	Cancelled due to weather
2300						
2330						
0000						
0030						
0100						
0130						
0200						

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

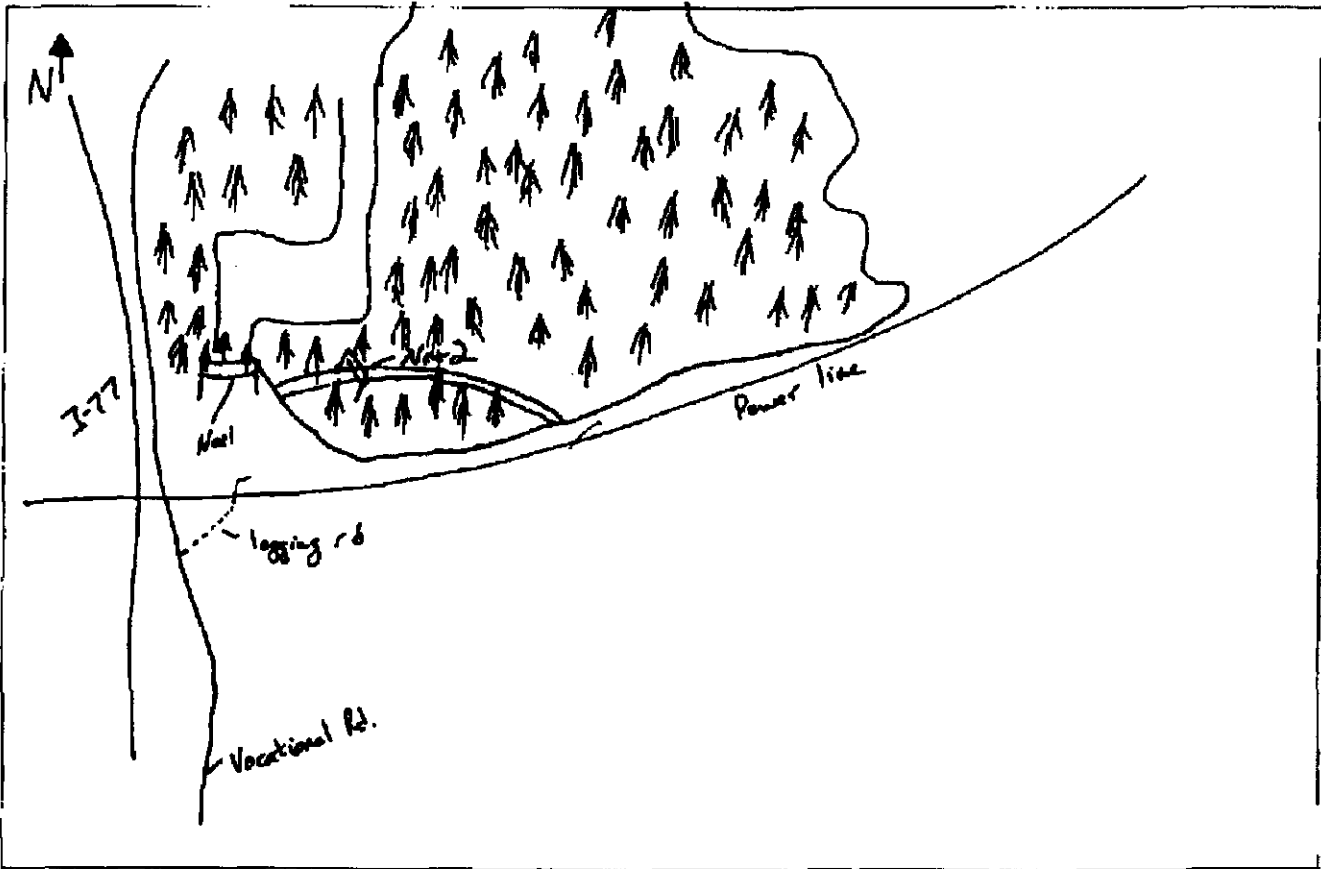
Site Name/Number: TEH-MN-OH-600A

Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
<u>Carya ovata</u>	<u>40cm</u>	<u>live</u>	<u>50%</u>	
<u>Unknown snag</u>	<u>20cm</u>	<u>dead</u>	<u>20%</u>	

Drawing of net site. Include north arrow & location of each net.



Site Name/Number: 7EH-MN-DH-600A

Page 1 of 2

NET SITE DESCRIPTION

Date: 6.26.08 Biologists: Samaray, Gardner

County: Guernsey State: OH Quad: Valley

Project Name: REX East Project Number: 1786.002-001

UTM Zone: 17S GPS Waypoint Name: MN-DH-600A

Easting: 4 5 4 9 1 3 (WGS 84)

Northing: 4 4 2 0 8 2 3

Comments (If photos taken, include direction camera was facing): _____

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

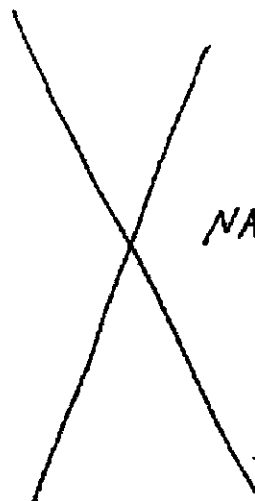
Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?



VEGETATION:

Estimated % Canopy Closure: Net 1 = 5% Net 2 = 95%

Dominant canopy species (at least 3; scientific names; spell out):

Juglans nigra, Carya ovata, Quercus alba

Average canopy diameter at breast height (DBH; indicate units):

30cm

Dominant understory species (at least 3; scientific names; spell out):

Cercis canadensis, Fraxinus americana, Prunus serotina

Average understory DBH (indicate units):

5cm

Estimated density of understory vegetation: high moderate low

BHE Environmental, Inc.

Site Name/Number: TER-MX-OH-5878Page 1 of 1**WEATHER DATA**Date: 6.24.08Biologists: Samaray, GardnerCounty: MuskingumState: OHQuad: Rich Hill Norman
88Project Name: REX EastProject Number: 1786.002-001Estimated Moon Phase: new 1/4 1/2 3/4 full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	64°	<1	—	N	15%	
2130	64°	<1	—	N	10%	
2200	63°	<1	—	N	0%	
2230	62°	<1	—	N	0%	
2300	62°	<1	—	N	0%	
2330	62°	<1	—	N	0%	
0000	62°	<1	—	N	0%	
0030	62°	<1	—	N	0%	
0100	61°	<1	—	N	0%	
0130	61°	<1	—	N	0%	
0200	61°	<1	—	N	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BHE Environmental, Inc.

Site Name/Number: TEH-MN-OH-⁵287BPage 1 of 1

WEATHER DATA

Date: 6.23.08Biologists: Samaray, GardnerCounty: MuskingumState: OHQuad: Rich Hill Norwich
BSProject Name: REX-EastProject Number: 1786-000-001Estimated Moon Phase: new ¼ ½ ¾ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	62°	<1	—	N	90%	
2130	61°	<1	—	N	95%	
2200	61°	<1	—	N	95%	
2230	58°	<1	—	N	70%	
2300	57°	<1	—	N	60%	
2330	57°	<1	—	N	10%	
0000	57°	<1	—	N	0%	
0030	57°	<1	—	N	0%	
0100	57°	<1	—	N	0%	
0130	56°	<1	—	N	0%	
0200	56°	<1	—	N	0%	

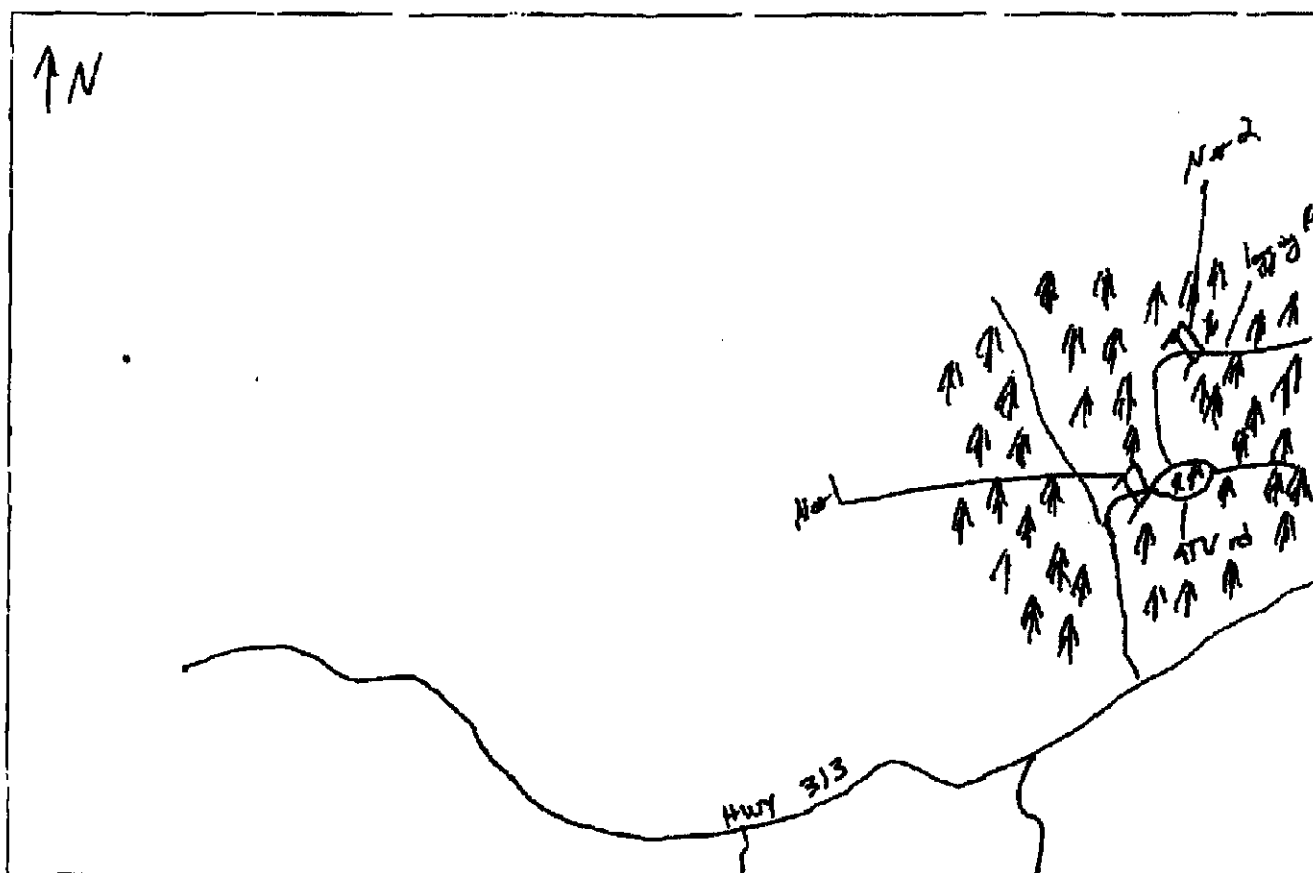
*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Site Name/Number: TEH-MN-04-⁵873Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
<i>NO PRTs present</i>				

Drawing of net site. Include north arrow & location of each net.

Site Name/Number: TEH-MN-OH-587BPage 1 of 2

NET SITE DESCRIPTION

Date: 6.23.08 Biologists: Samaray, GardnerCounty: Muskingum State: OH Quad: Rick Hill Norwich 38Project Name: BEX-East Project Number: 1786-002-001UTM Zone: 17S GPS Waypoint Name: TEH/MN/OH387BEasting: 4 3 5 3 2 6Northing: 4 4 1 8 1 7 4

Comments (If photos taken, include direction camera was facing): _____

STREAM NAME:

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

NA

VEGETATION:

Estimated % Canopy Closure: Net 1 = 60% Net 2 = 90%

Dominant canopy species (at least 3; scientific names; spell out):

Juglans nigra, Liriodendron tulipifera, Gleditsia triacanthos
Average canopy diameter at breast height (DBH; indicate units):
20cm

Dominant understory species (at least 3; scientific names; spell out):

Maclura pomifera, Alnus serrulata, Elaeagnus multiflora
Average understory DBH (indicate units):
10cmEstimated density of understory vegetation: high moderate low

BAT CAPTURE DATA SHEET

Date: 24 June 2008 Biologists: S. Williams, M. Farmer
County: Muskingum State: Ohio Quadrangle: Norwich
Project Name: Rex-East Project Number: 1786.002-001
Net 1 Size: width 18' height 30' Net 2 Size: width 18' height 20'
Site Description/Comments: Net 1 (18' x 30' 3 tiers) and Net 2 (18' x 20' 2 tiers)
across creek in wooded area

Site Description/Comments: Net 1 (18' x 50' 3 fiers) and Net 2 (18' x 20' 2 fiers)
across creek in wooded area

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

88

Site Name/Number: TEH-MN-OH-5B'DBAPage 1 of 1

WEATHER DATA

Date: 24 June 2008Biologists: S. Williams, M. FarmerCounty: MuskingumState: OhioQuad: NorwichProject Name: Rex-EastProject Number: 1786.002.001Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ \leftarrow $\left(\frac{3}{4}\right)$ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	60	<1	n/a	no	0%	
2200	58	<1	n/a	no	0%	
2300	56	<1	n/a	no	0%	
0000	56	<1	n/a	no	0%	
0100	54	<1	n/a	no	0%	
0200	52	<1	n/a	no	0%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

TEH-MN-JH-5878A

Page 1 of 1

BAT CAPTURE DATA SHEET

Date: 23 June 2008

Biologists: S. Williams, G. Sands

County: Mustang

State: Ohio

Quadrangle: Norwich

Project Name: Pex-East

Project Number: 1786.002-001

Net 1 Size: width 18' height 30'

Net 2 Size: width 18' height 20'

Site Description/Comments: Net 1 (18'x30' 3 fers) and Net 2 (18'x20' 2 fers)
across small creek in wooded area

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

88

Site Name/Number: TEH-MN-OH-5878APage 1 of 1

WEATHER DATA

Date: 23 June 2008Biologists: S. Williams, G. JanosCounty: MuskingumState: OhioQuad: NorwichProject Name: Rex-EastProject Number: 1786-002-001Estimated Moon Phase: new ¼ ½ ¾ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	62	41	N/A	No	100%	
2200	61	41	N/A	No	100%	
2300	58	41	N/A	No	0%	
0000	55	41	N/A	No	0%	
0100	53	41	N/A	No	0%	
0200	52	41	N/A	No	0?	

*Use the following guidelines to determine wind speed:

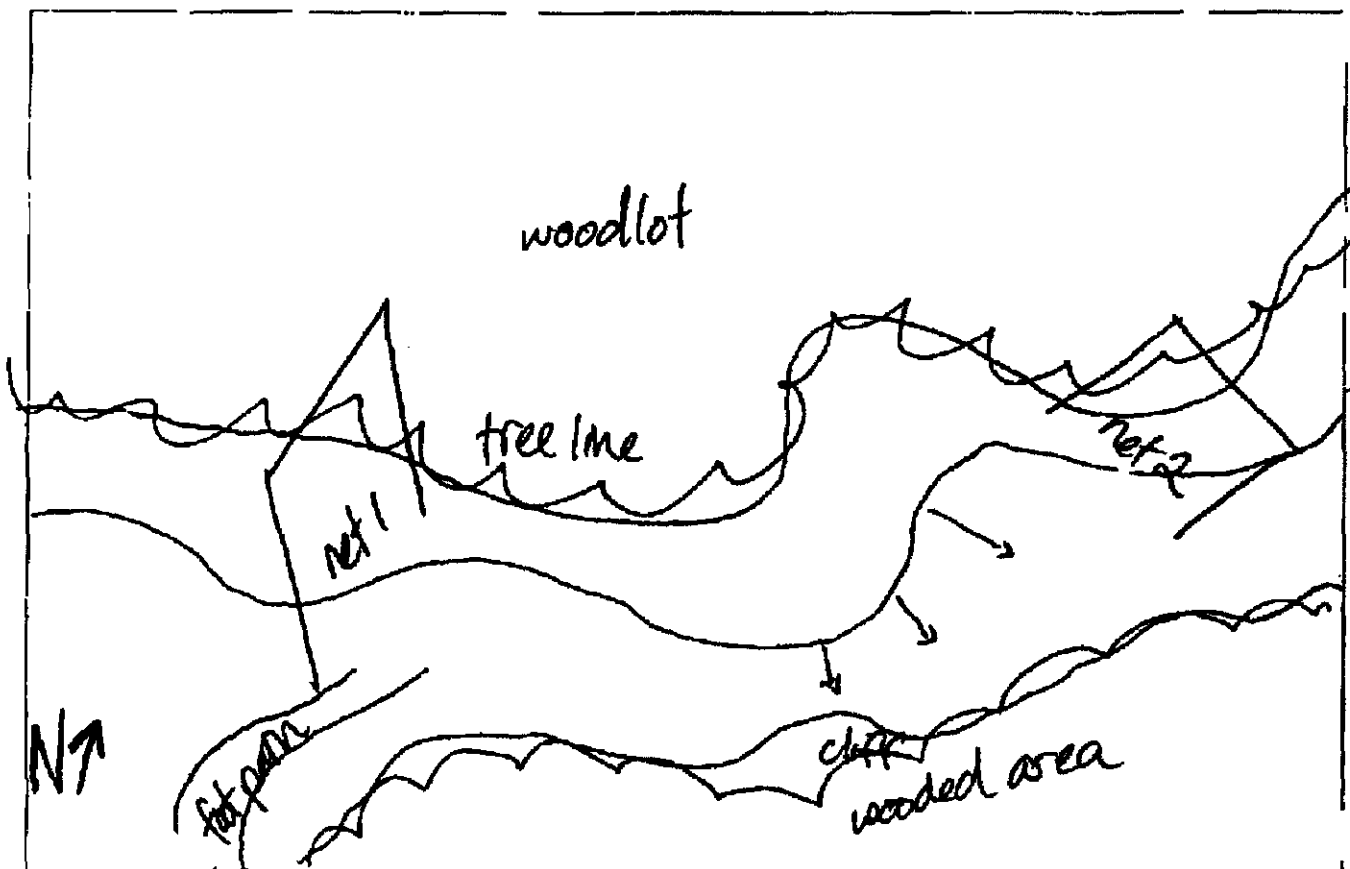
- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

Page 2 of 2

Description of potential Indiana bat roost trees visible from net site

Tree Species (scientific names; spell out)	Est. DBH (with units)	Live or dead	Est. % loose bark	Comments
		n/a		

Drawing of net site. Include north arrow & location of each net.



88

Site Name/Number: TEH-MN-OH-5878APage 1 of 2

NET SITE DESCRIPTION

Date: 23-24 June 2008 Biologists: S. Williams, M. FarmerCounty: Muskingum State: Ohio Quad: NorwichProject Name: Rex-East Project Number: 1786-002-001UTM Zone: 17S GPS Waypoint Name: TEMNOH5878Easting: 4 3 4 5 3 1Northing: 4 4 1 8 1 1 8Needs to be
changed to 587A
in GISComments (If photos taken, include direction camera was facing): Net 1 and
Net 2 across creek and small wooded area.

STREAM NAME:

Bank Height (indicate units): South bank 20', north bank 2.5'Channel Width (indicate units): 100W 12'Stream Width (indicate units): 6'Substratum: bedrock, shaleAverage Water Depth (indicate units): 1'Turbidity: clearPresence of open flyway above stream? yes

VEGETATION:

Estimated % Canopy Closure: Net 1 = 60° Net 2 = 40°

Dominant canopy species (at least 3; scientific names; spell out):

Platanus occidentalis, Gleditsia triacanthos, Acer saccharum

Average canopy diameter at breast height (DBH; indicate units):

14"

Dominant understory species (at least 3; scientific names; spell out):

Gleditsia triacanthos, Maclura pomifera, Acer saccharum

Average understory DBH (indicate units):

6"Estimated density of understory vegetation: high moderate low

BAT CAPTURE DATA SHEET

Date: 24 June 2008

Biologists: B. Steffen, J. Hammersley

County: Massachusetts State: OH
 Quadrangle: Norwich

Project Name: 25K East 2008 Project Number: 1726.002

Net 1 Size: width 9m height 6m

Net 2 Size: width 8m height 9m

Site Description/Comments: Plot 1 across a gravel access road, Plot 2 across a maintained grass field w/in a stand of scattered tall trees.

Net Up Time: 2115

Net Down Time: 0215

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MN-OH-586APage 1 of 1**WEATHER DATA**Date: 24 June 2008Biologists: B. Steffen, J. HammersleyCounty: MuskingumState: OHQuad: NorwichProject Name: PEX East 2008Project Number: 1786.002Estimated Moon Phase: new ¼ ½  ¾ full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	68	41	N/A	No	0%	
2130	68	41	N/A	No	10%	
2200	66	41	N/A	No	0%	
2230	66	41	N/A	No	0%	
2300	66	41	N/A	No	0%	
2330	66	41	N/A	No	20%	
0000	66	41	N/A	No	10%	
0030	66	41	N/A	No	10%	
0100	66	41	N/A	No	20%	moon behind treeline
0130	64	41	N/A	No	20%	" " "
0200	64	41	N/A	Yes	20%	

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

BAT CAPTURE DATA SHEET

Date: 23 June 2008

Biologists: P. Steffen, J. Hammarsley

County: Muskingum

State: 014

Quadrangle: Norwich

Project Name: REX East 2008

Project Number: 1786.002

Net 1 Size: width 9m height 6m

Net 2 Size: width 18m height 9m

Site Description/Comments: Not across gravel access road. Not across a maintained grass field with a stand of scattered tall trees.

[illegible]

Reproductive Condition: N = non-reproductive, P = pregnant, L = lactating, PL = post-lactating, TD = testes descended

Site Name/Number: TEH-MH-OH-586APage 1 of 1**WEATHER DATA**Date: 23 June 2008Biologists: B. Steffen, J. HammersleyCounty: MuskingumState: OHQuad: NorwichProject Name: REX East 2008Project Number: 1786.002Estimated Moon Phase: new $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$  full

Time (military)	Temp (F)	Wind Speed*	Wind Direction	Moon Visible?	% Cloud Cover	Comments
2100	62	1-3	E	No	100%	Scattered sprinkles
2130	62	1-3	E	No	100%	" "
2200	60	<1	N/A	No	100%	
2230	60	<1	N/A	No	90%	
2300	60	<1	N/A	No	70%	
2330	58	<1	N/A	No	50%	
0000	58	<1	N/A	No	30%	
0030	58	<1	N/A	No	10%	moon behind treeline
0100	58	<1	N/A	No	0%	" " " *
0130	56	<1	N/A	Yes	0%	" " " *
0200	56	<1	N/A	Yes	0%	" " " *

* heavy fog

*Use the following guidelines to determine wind speed:

- < 1 mph calm; smoke rises vertically; no perceivable movement
- 1-3 mph smoke drift shows wind direction; barely moves tree leaves
- 4-7 mph wind felt on face; leaves rustle; small twigs move
- 8-12 mph leaves and small twigs in constant motion; blows up dry leaves
- 13-18 mph moves small branches; raises dust

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100

1



Site Name/Number: TEH-MN-OH-586APage 1 of 2**NET SITE DESCRIPTION**Date: 24 June 2008 Biologists: B. Steffen, J. HammersleyCounty: Muskingum State: OH Quad: NorwichProject Name: PEX East 2008 Project Number: 1786.002UTM Zone: 17S GPS Waypoint Name: TEMNOH586AEasting: 4 3 3 7 4 7Northing: 4 4 1 7 9 9 0Comments (If photos taken, include direction camera was facing): Net 1 across a gravel access road. Net 2 across a maintained grass field w/in a stand of scattered tall trees.**STREAM NAME:**

Bank Height (indicate units):

Channel Width (indicate units):

Stream Width (indicate units):

Substratum:

N/A

Average Water Depth (indicate units):

Turbidity:

Presence of open flyway above stream?

VEGETATION:Estimated % Canopy Closure: Net 1 = 90%Net 2 = 80%

Dominant canopy species (at least 3; scientific names; spell out):

Gleditsia triacanthos, Prunus virginiana, Quercus rubra

Average canopy diameter at breast height (DBH; indicate units):

24 in

Dominant understory species (at least 3; scientific names; spell out):

Gleditsia triacanthos, Sassafras albidum, Carya glabra

Average understory DBH (indicate units):

4 inEstimated density of understory vegetation: high moderate low