

2.0 Methods

2.1 Mist Netting

Sampling efforts will follow guidelines provided by the Indiana Bat Recovery Team in the 2007 Indiana Bat Draft Recovery Plan (First Revision) (Table 1) as supplemented by guidance provided in ODNR's On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio (Table 2).

2.1.1 Level of Effort

In prior correspondence, ODNR requested that 25 sites be sampled for bats based on the amount of forest contained in the Project area (Figure 3).

Table 1. USFWS Indiana Bat Mist Net Survey Guidelines

NETTING GUIDELINES

- 1. Netting Season: 15 May to 15 August, when Indiana bats occupy summer habitat.
- 2. Equipment (Mist Nets): constructed of the finest, lowest visibility mesh commercially available monofilament or black polyester with the mesh size approximately 38 millimeter (approximately 1.5 in).
- 3. Net Placement: mist nets extend approximately from water or ground level to tree canopy and are bounded by foliage on the sides. Net width and height are adjusted for the fullest coverage of the flight corridor at each site. A "typical" net set consists of three (or more) nets "stacked" on top of one another; width may vary up to 20 meters (60 ft).
- 4. Net Site Spacing:
 - ◆ Streams one net site per 1 kilometer (0.6 mi)
 - Land Tracts two net sites per 1 square kilometer (246 ac) of forested habitat
- 5. Minimum Level of Effort Per Net Site:
 - ◆ Two net locations (sets) per net site, with locations (sets) at least 30 meters (100 ft) apart
 - ◆ Two (calendar) nights of netting
 - ◆ At least four net–nights (1 net–night = 1 net set deployed for 1 night); typically, two net sets are deployed at one site for two nights, resulting in four net-nights
 - Sample Period: begin at dusk and net for 5 hours (approximately 0200h)
 - Nets are monitored at approximately 10-minute intervals
 - No disturbance near the nets between checks
- 6. Weather Conditions: net only if the following weather conditions are met:
 - No precipitation
 - ◆ Temperature > 10° Celsius (50° F)
 - No strong winds

Source: U.S. Fish and Wildlife Service, 2007



Table 2. ODNR Moderate Monitoring Mist Net Survey Guidelines for Proposed Commercial Wind Facilities

ODNR MODERATE MONITORING NETTING GUIDELINES

- 1. Netting Season: 15 June to 31 July.
- 2. Net Placement:
 - ♦ Nets are placed on pulley systems that allow at least two standard nets to be "stacked" on top of each other and with one set of poles allowing 3 nets to be stacked and reach 7.5 meters from the substrate.
 - Proposed net sites are to be inspected by ODNR personnel prior to beginning sampling efforts.
- 3. Net Site Spacing: Land Tracts two net sites per 1 square kilometer (246 ac) of forested habitat
- 4. Minimum Level of Effort Per Net Site:
 - ◆ Four net locations (sets) per net site, with all locations (sets) within at least 100 meters (30 ft) of each other
 - ◆ Two non-consecutive (calendar) nights of netting
 - At least eight net-nights (1 net-night = 1 net set deployed for 1 night);
 - ◆ Sample Period: begin at dusk and net for 5 hours (approximately 0200 h)
 - Photos of all species captured
- 5. Marking of Bats:
 - ♦ Small dots of nontoxic, water-soluble paint applied to one forearm of all bats to temporarily identify recaptures.
 - ♦ Indiana and Rafinesque's Big-Eared bats banded with bands provided by ODNR
 - Eastern Small-Footed Bats are not banded due to risk of injury

Source: Ohio Department of Natural Resources 2009

2.1.2 Net Placement

Mist nets are set to maximize coverage of flight paths used by Indiana bats along suitable travel corridors, foraging areas, and/or drinking areas. Riparian corridors are often used for travel or foraging by Indiana bats; however, upland corridors (e.g., trails or logging roads) also provide suitable sites. In upland areas, net sites in the vicinity of road ruts holding water have resulted in Indiana bat captures in many portions of the range.

Using GIS, ESI's biologist identified 30 potential sites (Figure 3) for sampling. This includes 8 sites beyond the required 25 to address potential issues related to property access and to address sites with unsuitable characteristics that may not be detected using remote sensing techniques. The 30 sites are distributed throughout the Project area and were placed so to maximize bat capture. Preferred sites include:



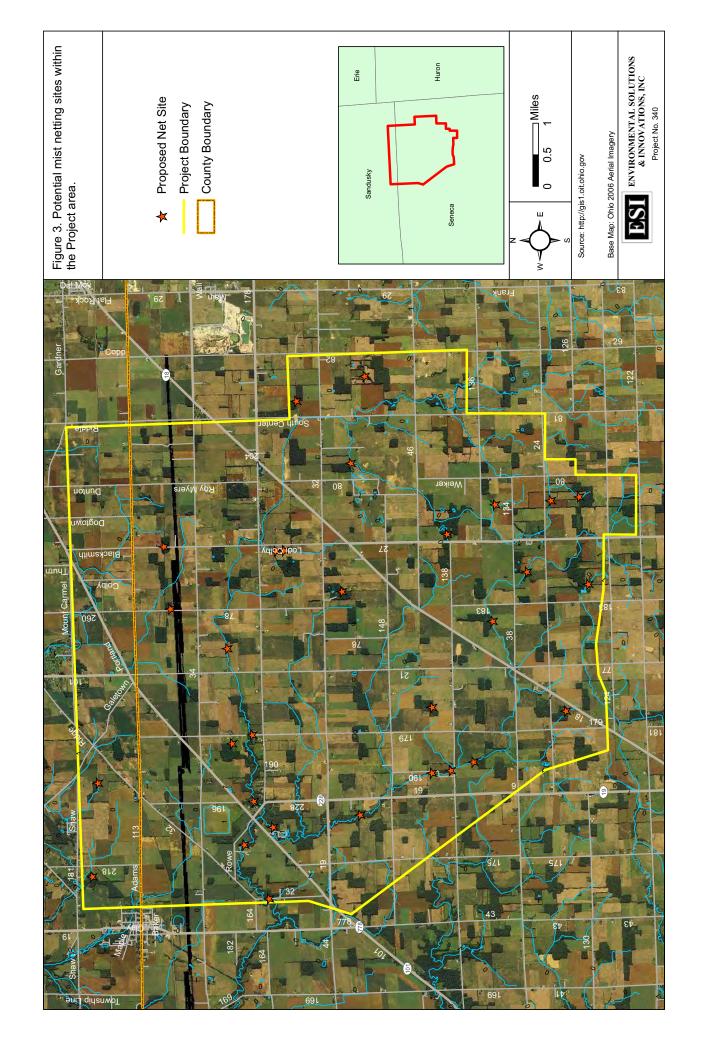
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- 1. Riparian corridors along streams that connect larger woodlands, which could be used by foraging or roosting bats
- 2. Wooded upland corridors (roadways, fencerows) that connect larger woodlands, which could be used by foraging or roosting bats
- 3. Upland corridors including trails and utility rights-of-ways through larger woodlands that bats use for commuting and foraging
- 4. Choke points entering and exiting high potential foraging grounds (such as small fields or wetlands)
- 5. Areas identified as suitable using a model of habitat suitability (Weber and Sparks In Litt).

These potential sites are general locations. Once in the field, qualified bat biologist will select the exact netting locations and net orientation so to maximize bat capture. Extra sites have been pre-selected to allow field biologist maximum flexibility to select high quality net sites, and in the expectation that some preferred sites will be on inaccessible parcels. Because netting efforts can be easily impacted by environmental factors such as changes in vegetation or water level, the actual location and orientation of each net set is determined in the field by a qualified bat biologist.

Given that ESI was not directly involved in the negotiation of net sites, and that ODNR has, on other sites, agreed to lower the sampling effort in exchange for the inclusion of other techniques. ESI requests concurrence from USFWS and ODNR that this survey effort will be accepted as a presence, probable absence survey for the Indiana bat.





2.1.3 Bat Capture and Marking

Bats are live-caught in mist nets and released unharmed near the point of capture. Captured bats are identified to species, sex, age class, and reproductive condition. Weight and right forearm length of each individual are also recorded. Age is determined by examining the ephiphyseal-diaphyseal fusion of long bones in the wing. Reproductive condition of female bats is recorded as pregnant (based on gentle abdominal palpation), lactating, post lactating, or non-reproductive. Time and location/net site of captured bats is recorded. Indiana and Rafinesque's big-eared bats will be banded with bands provided by ODNR and processing is typically completed within 30 minutes of the time each bat is removed from the net.

In response to the current White Nose Syndrome (WNS) issue, ESI biologists will follow Bat Handling/Disinfection Protocol for Summer Bat Field Studies, developed by the USFWS and any subsequent updates issued by either ODNR or USFWS. ESI biologists will also categorize wing damage using the "Wing-Damage Index Used for Characterizing Wing Condition of Bats Affected by White-nose Syndrome" established by Jon Reichard in 2008.

2.1.4 Habitat Characterization

Concurrent with mist netting, habitat is described for each net site. The emphasis of this description is habitat form: size and relative abundance of large trees and snags that potentially serve as roost trees, canopy closure, understory clutter/openness, water availability, and flight corridors. Habitat form is emphasized because the Indiana bat roosts in a great many species of trees. Tree species composition is included in the assessment since it provides insight on edaphic conditions on site.

ESI's habitat characterization does more than emphasize species of large trees near the net. It identifies components of the canopy and subcanopy layers. As defined in the Indiana Bat Habitat Suitability Index Model, dominant trees are the large trees in the canopy (> 40 cm diameter at breast height [dbh]) that have the greatest likelihood of being used by maternity colonies of Indiana bats. ESI's habitat characterization identifies dominant and subdominant elements of the canopy. The amount of understory, or clutter, is also recorded, as many bat species, including the Indiana bat, tend to avoid areas of high clutter.

Each net site is documented with a sketch on the Net Site Habitat Description data sheet.

2.1.5 Weather and Temperature

Weather conditions will be monitored each night of survey to assure compliance with mist netting guidelines. Temperature, wind speed and direction, and percent cloud cover are recorded on an hourly basis. Netting will be discontinued during rain. A



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standard thermometer will be used to record temperature. Wind speed will be determined by use of the Beaufort wind scale, and cloud cover will be visually estimated. Weather data will be provided in an appendix to the final report.

2.2 Capture of Indiana Bats

2.2.1 Transmitter Attachment

After collecting morphometric data, up to four Indiana bats will be fitted with radiotransmitters. A maximum of three transmitters will be attached per net site, and as feasible, transmitters will be placed on females or juveniles in preference to males. Only one transmitter will be attached to an adult male bat. Transmitters are obtained from Holohil Systems Ltd., @Wildlife Materials, Inc., @Titley Electronics, PTY LTD, ®Blackburn Transmitters, or a similarly reputable vendor. Bat transmitters weigh from 0.20 to 0.68 gram; ESI typically uses 0.35-gram transmitters, favoring minimal impact to the bat over the additional tracking window associated with larger devices. Batteries on these 0.35-gram transmitters typically last from 7 to 14 days. Transmitters are activated and tested before attachment. A small interscapular area is trimmed of fur and the transmitter attached to this area with non-toxic surgical The adhesive degrades over time (typically 1 to 4 weeks) and the transmitter falls off the bat. Biologists record the transmitter weight, weight of the bat before and after transmitter attachment, and holding time. Bats are released unharmed near the points of capture. Standardized data forms are used for transmitter attachment information.

ESI will notify USFWS, ODNR, and Republic of any Indiana bat captures by the next business day.

2.2.2 Diurnal Roost Telemetry

To locate roosting bats, ESI tracks radio-telemetry signals using either a ®Wildlife Materials TRX-2000S PLL Synthesized Tracking Receiver, an ®Advanced Telemetry Systems, Inc. Model R2000 Scanning Receiver, or a ®Titley Australis 26k receiver with three-element folding Yagi directional antennas manufactured by either ®Wildlife Materials, Inc. or ®Titley Electronics, PTY LTD. Receivers are not water resistant and will not be used during periods of rain.

Beginning the day after bat capture and transmitter attachment, ESI biologists use telemetry to locate each bat's diurnal roost. Roost trees are identified to species and dbh is measured. The approximate height at which the bat is roosting and general condition of the roost tree (dead, live, dying, % bark cover, etc.) is noted. A description of habitat near the roost tree is recorded. Occasionally, Indiana bats roost in man-made structures, most frequently bridges. Standardized data forms are used to characterize roost trees and assess associated habitat; the form also provides for assessment of man-made structures used as roosts. Roosts are



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photographed and flagged or marked in another acceptable manner for ease of future identification. Coordinates of each roost are recorded with a GPS unit. When feasible, distances among roost trees and other notable landscape features are determined.

Bats will be tracked for approximately six days after the date of capture or until the transmitter is shed or fails, whichever happens first. Emergence counts will be performed on each identified roost tree for three days. In situations where multiple bats are being tracked and each bat uses a new roost daily, it can quickly become financially and logistically infeasible to complete three days of emergence on all trees. In those situations, all trees will be watched for at least 1 day. Beyond that, ESI biologists will use their best judgment to select which trees receive further observation.

GPS location, tree species, dbh, and various other habitat characteristics will be recorded on ESI's Roost Habitat data sheets.

2.2.3 Nocturnal Telemetry

At night, for the life of the transmitter, the tagged bat will be followed to identify foraging and activity areas to determine the home range of the individual and collectively of all tagged bats from the same maternity colony. Telemetry readings are taken at approximately 5-minute intervals, simultaneously by three or four biologists so that triangulation can be used to ascertain the location of the bat. These data points are plotted on maps and used to construct "minimum convex polygons" or "kernels" depicting areas used by the bat(s). Within that area, habitat use versus availability can be used to determine whether bats are concentrating their activity in a specific area or habitat.

2.3 Capture and Telemetry of Eastern Small-footed or Rafinesque's Bigered Bats

Although highly unlikely, ESI will radio-tag any and all eastern small-footed or Rafinesque's big-eared bats that are captured. The same techniques will be used to track these species as are outlined above for tracking Indiana bats to determine both their day roosts and home range.



2.4 Capture and Telemetry of Colonial Bats

Maternity colonies concentrate individuals in an area and thus increase the risk of death or injury if turbines are located nearby. If more than 15 reproductive females or juveniles of one of the more common colonial species (e.g., big brown, little brown, or northern bat) are captured within a night's trapping, radio telemetry will be used to locate the maternity colony. A maximum of 10 transmitters will be used to complete this task, and their use will be stratified across the project area.

Each roost that is located will be monitored at least five times at dusk, unless only one or no bats are observed on three consecutive emergence counts.

3.0 Timeline and Reporting

Mist net and surveys will be conducted between 20 June and 31 July 2011, and any associated radio-telemetry will be completed by 5 August 2011. ESI will prepare a detailed technical report that provides results and discussion of the mist net survey. Copies of field data sheets and an interpretation of those data will also be included. The report will also contain maps clearly identifying the Project area, mist net sites, and diurnal roost trees (if applicable). Representative photographs of net sites, all bat species captured, and roost trees will be included.

4.0 Request for Site-Specific Authorization to Proceed

Please consider this study plan a request for site-specific authorization to begin sampling throughout the proposed Project Area on 20 June 2011.



5.0 Personnel

A list of ESI staff that may be involved in field work for the Project follows. Other staff not listed here may also participate – resumes can be provided upon request; all individuals responsible for bat identification are listed on ESI's scientific collection permit(s).

- 1. Dr. Virgil Brack, Jr. Principal Scientist
- 2. Dr. Dale W. Sparks Project Manager
- 3. Mr. Adam Mann
- 4. Mr. Jason Duffey
- 5. Ms. Lisa Winhold
- 6. Ms. Erin (Pfeffer) Basiger
- 7. Dr. L. Michelle Gilley
- 8. Mr. Jack Basiger
- 9. Mr. David Jeffcott
- 10. Mr. Jared Helms
- 11. Mr. Nick Gikas
- 12. Dr. Justin Boyles





From: Norris, Jennifer [mailto:Jennifer.Norris@dnr.state.oh.us]

Sent: Wednesday, July 27, 2011 1:27 PM To: Megan_Seymour@fws.gov; Dale Sparks

Cc: Keith_Lott@fws.gov; Melanie_Cota@fws.gov; Angela_Boyer@fws.gov

Subject: RE: Republic Wind Project

Megan-

Capture site: 41 12' 25.2", -82 57' 10.3"

Roost 1: 41 13' 07.5", -82 56' 38.0"

Roost 2: 41 13' 06.1", -82 56' 44.6"

Both roost trees are shag bark hickory. Jack indicated ESI was still netting as well- they should be done netting by the end of the week.

Jennifer L. Norris Wildlife Research Biologist Olentangy Wildlife Research Station ODNR, Division of Wildlife 8589 Horseshoe Road Ashley, OH 43003

Tel: 740 747-2525 Ext: 26

Email: jennifer.norris@dnr.state.oh.us

-----Original Message-----

From: Megan_Seymour@fws.gov [mailto:Megan_Seymour@fws.gov]

Sent: Wednesday, July 27, 2011 1:21 PM

To: Dale Sparks

Cc: Norris, Jennifer; Keith_Lott@fws.gov; Melanie_Cota@fws.gov; Angela_Boyer@fws.gov

Subject: RE: Republic Wind Project

Dale,

Thank you for the notification. There was no map attached, so please provide that and the lat/long when you get a chance. We look forward to hearing more from you about this bat. Are you still netting? How many more sites/nights do you anticipate netting for? Thanks again,

Megan

Dale Sparks < DSparks@environmentalsi.com>

Dale Sparks

<DSparks@environmentalsi.com>

07/26/2011 05:57 PM

To"<u>Megan_Seymour@fws.gov</u>" <<u>Megan_Seymour@fws.gov</u>>, "Jennifer.Norris@dnr.state.oh.us"

<Jennifer.Norris@dnr.state.oh.us>

Jennifer and Megan:

My field crew at republic captured and radio-tagged a post-lactating Indiana bat on Sunday night. They have located the bat to a woodlot located immediately to the West of the label for site 13 in the attached map.

I apologize for the late notice. I was on the road yesterday and had thought you had already been notified.

From: Megan_Seymour@fws.gov [Megan_Seymour@fws.gov]

Sent: Friday, July 08, 2011 12:43 PM

To: Virgil Brack

Cc: Dale Sparks; Funk, Jason (Jason.Funk@tetratech.com)

Subject: Re: Republic Wind Project

Virgil,

Thank you for providing this. When Angie receives requests for wind projects she always runs them by whoever has been coordinating on that project, so we did already see this proposal and agree that it was appropriate.

Sincerely,

Megan

[cid:1__=0ABBF254DFC843218f9e8a93df938690@fws.gov]Virgil Brack <VBrack@environmentalsi.com>

Virgil Brack <VBrack@environmentalsi.com>

06/30/2011 11:58 AM

То

"Megan Seymour (Megan_Seymour@fws.gov)" <Megan_Seymour@fws.gov>

CC

"Funk, Jason (<u>Jason.Funk@tetratech.com</u>)" <<u>Jason.Funk@tetratech.com</u>>, Dale Sparks <DSparks@environmentalsi.com>

Subject

Republic Wind Project

[cid:4__=0ABBF254DFC843218f9e8a93df938690@fws.gov] Megan,

Attached please find the study plan for the Republic Wind Energy Project (Republic Wind Energy, LLC - a Nordex company), a proposed commercial wind energy facility consisting of approximately 16,028 hectares (39,607 ac) in Seneca and Sandusky Counties, Ohio. The Project straddles the Seneca/Sandusky county line, just east of the town of Green Springs in Sandusky County, Ohio and covers part of the Fremont East, Clyde, Watson, and Fireside USGS 1/24000 quadrangles.

ESI has been retained to complete sampling/netting for the chiropterofauna at the Project site, including the endangered Indiana bat. The study plan details sampling efforts that follow guidelines provided by the Indiana Bat Recovery Team in the 2007 Indiana Bat Draft Recovery Plan (First Revision) and guidance provided in ODNR's On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio. Based on previous coordination, ODNR indicated that the Project met the need for a moderate level of wildlife monitoring.

We are seeking your approval of the study plan. It was previously sent to Angela Boyer (USFWS) and Jennifer Norris (ODNR) and we received approval from both of tem, but you unfortunately and not keep in this loop. For that I apologize.

Thanks

Virgil

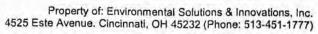
ESI has Moved. Our NEW ADDRESS is:

Environmental Solutions & Innovations, Inc. 4525 Este Avenue Cincinnati, OH 45232

Virgil Brack, Jr., Ph.D., MBA
CEO and Principal Scientist
Office: 513-451-1777; Cell: 513-235-1076; Fax: 451-3321
[attachment "340 Republic Wind Study Plan 20 June 2011.pdf" deleted by
Megan Seymour/R3/FWS/DOI]

APPENDIX C
COMPLETED MIST NET, ROOST TREE, AND TELEMETRY DATA SHEETS





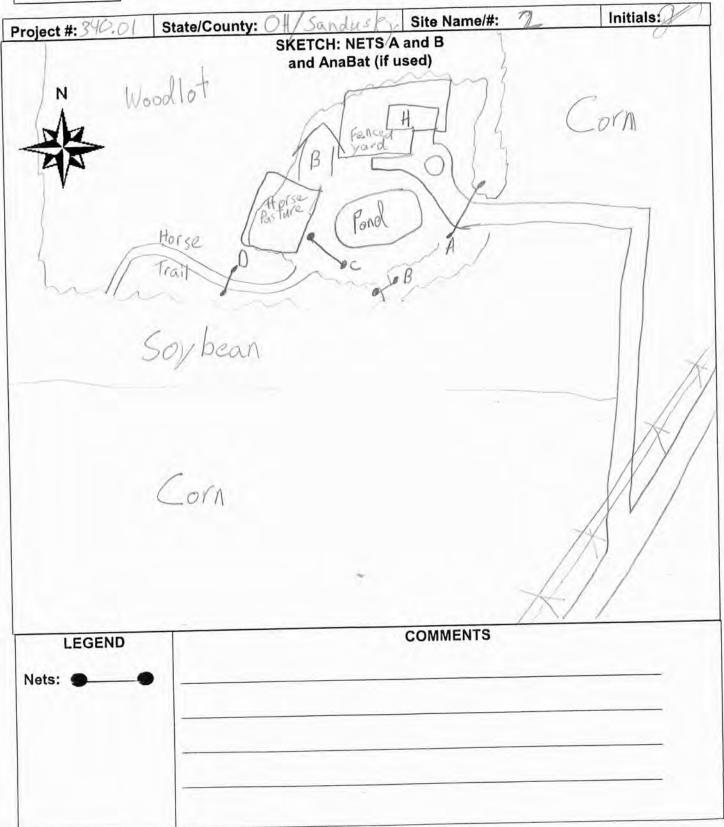


NET SITE HABITAT DESCRIPTION

Project :	#: 340,01	Da	te: 19 Jul 11	Biologi	sts: Jack	Basinel	
	Name: Repul	olic			me/#: Z	1	
State:		ounty: Sand	lusky		Quad: Frem	ont Eas	t
Net/Trap/ or AnaBat	Net/Trap/ AnaBat Serial #	L	atitude	Long	itude	Picture #	Waypoint #
A	/\	41 . 15	· 56.4 "N	83.00	' 26,9 "W	970	ZA
B	N	91 . 15	56,5 "N	83 . 00	287 W	971	28
0	N	91 . 15	'S5,1 "N	83.00	'30.2 "W	972	20
	to closest wate	y ° 15	'56,9 "N ers): 10	83°00	of water sour	973	20
	ource name: P			_ туре	or water sour	Je. Jonu	_
			RACTERISTICS	(IF UNDER NE	ETS): 1///		-
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			erCobble				,,,,
			erage Water De			all and the property of	
VEGETA			orago trator Bo	.punm	on Clarity (11,101,12)	-
	t Canopy Speci	es (> 40 cm/16	6" dbh)	Subdominant (Canopy Specie	es (< 40 cm	n/16" dbh)
Acer	rubrum	38.9 JA225 THE		Acr rubi		S. VODE FOR	W. B. L. Barrow
Caryo	ovala	7		Quercus 1	galustris		
Quer	sus palusti	25		Fagus gran	difolia		
Estimate	d dbh range: Lo	g: <u>70</u> Sm	:40	Estimated dbh		9_ Sm:	10
Relative	abundance of d	ominant vs. su	bdominant (ratio	D): 1:75			
Estimate	d canopy closur	e:	Closed		1/Moderate	(Open
Roost tree potential consists of:Large Tree				ees	Snags	V	Neither
Roost tree potential for the area is:HighMo					Moderate	1/1	_ow
Roost potential comments: large trees have tight bark							
Subcanopy clutter: ClosedModerateOpen						Open	
Subcanopy comprised largely of:							
			Canopy	Trees	200		
Common	Subcanopy Spe	ecies: _					
		_					
Habitat D	escription: La	rge wood	lot with	corp field	or all 4 sta	15	
AnaBat H	abitat: N/A						
	that apply:			11			
	Upland Forest Upland Forest	Recently Forest E	Logged Forest		sture Land	_Oth	ner
	Lowland Fores			Stream/F Vernal P		-	
	Lowland Forest				er Lake/Pond		
Herbaceo Revised April	us Cover:	Sparse	Moderate	Dense			



NET SITE HABITAT DESCRIPTION (continued)





BAT CAPTURE DATA

A Garet 500 Date: 19 J.W. Camera #: SYN servera Kennolic Biologists: J Rushaw County: Project #: 340,01 Project Name: Site name/#: GPS Unit #: State:

MOON PHASE*

Waxing gibbous
Last quarter New moon

Waning crescent Waxing crescent Full moon

Waning gibbous First quarter

Time	Temp (°C)	Wind Speed (estimated – see chart)*	Wind Direction: From to	% Cloud Cover (estimated)	Comments
17.	8	0	(С	
	24.9	1	ı	0	
22 813	243	١	1	0	
3830	23.9	1	ľ	0	
2350	73.5	1	1	0	
	23,2	1	1	0	
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AN RO		1	1		
38		(-3	W-E	0	
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Net/Trap/Anabat	t Net/Trap Type¹	Latitude	Longitude	Length (m)	Height (m)	Time Up (0000 h)	Time Up Time Down (0000 h)	Picture #
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Net Placement/Site Description:

Capt #	Net #	Species	Time	Age (Ad/Jv)	(M/F)	repro	(6)	(mm)	(F/M/E)	(0-3)	Picture # /Guano/Hair Sample
-	. <	Sulsayed Survisol	3140	AS	H	70	1	38	2	0	
-	IC	A CLOS CHIS DISCUS	OHIC	AN	11	70	15.5	42	Σ	0	
-	1	Con	21515	N	1-	70	7.75	77	Σ	0	
-	I c	F Cherry	2150	ACI	77	70	Holls	100	I	0	
-	0	STOCK S	21.8	AM	L	70	20.5	5	E	0	
-	10	Mary Acord Activity	0.00	TA	سليا	7.0	6.5	30	E	0	
-	I	M	316	Ad	4	70	7,25	30	E	0	
+	×	- Sursolis	3215	1	L	NR	N.5	7	I	0	
+	V	00000 W	DEEC	Ad	Σ	>	17.25	0	2	0	
	1	# 428 250	0000	Ac	L	J F PL 17 43		67	2	0	

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat * Refer to table on the back

Page 1 of



Project #:

BAT CAPTURE DATA (continued)

Picture # /Guano/Hair Sample Comments Wing Index* (0-3) Initials: Belly (F/M/E) 07 RFA (mm) ¥ 6 Repro.² Sex (M/F) Age (Ad/Jv) Site Name/#: 8653 MONE 0000 Time Species fuscus TASMIS Project Name: T Capt #

Beaufort Wind Scale

Wind Speed (mph)	Description	Visible Condition
	Calm	Smoke rises vertically
1-3	Light Air	Direction of wind shown by smoke but not by wind yanes
4-7	Light Breeze	Wind felt on face: leaves rustle: ordinary wind vane moved by wind
8-12	Gentle Breeze	Leaves and small twigs in constant motion: wind extends light flag
13-18	Moderate Breeze	Raises dust and loose paper small branches are moved
19-24	Fresh Breeze	Small trees in leaf begin to sway: crested wavelets on inland water
25-31	Strong Breeze	Large branches in motion: telephone wires whistle: unhinellas used with difficulty
32-38	Moderate Gale	Whole trees in motion: inconvenience in walking against wind
39-46	Fresh Gale	Breaks buins off traes namerally impedes progress

2010 Lunar Phases

Vew	First Quarter	Full	Last
Feb 13	Mar 23	Mar 29	Apr 6
Mar 15	Apr 21	Apr 28	May 5
Apr 14	May 20	May 27	Jun 4
May 13	Jun 18	Jun 26	Jul 4
Jun 12	Jul 18	Jul 25	Aug 2
Jul 11	Aug 16	Aug 24	Sep 1
Aug 9	Sep 15	Sep 23	Sept 30
Sep 8	Oct 14	Oct 22	Oct 30
Oct 7	Nov 13	Nov 21	Nov 28

Wing Index Key

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar fissue (splotching). Scarning is visible without translumination. Membrane exhibits some necrobe tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
	Heavy damage. Deteriorated wing membrane and necroito tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or

Comments

% Cloud Cover (estimated)

(estimated - see chart)*

Temp (°C)

Time (0000 h)

Wind Speed

WEATHER DATA Wind Direction: From to



BAT CAPTURE DATA

1 20M					can is I
Date: 21 Jul 20		0			Camera #:
Date	1/4	County: Seneca	10		5/270
340,01	Project Name: Repub	3	J. Basia	· α	10 10 mg
Project #: 340,01	Project Nan	State: 04	Biologists: J. B	Site name/#	GPS Unit #:

29 0280

MOON PHASE*	Waxing crescent	Full moon	Waning crescent
	New moon	Waxing gibbous	l ast quarter

First quarter
Waning gibbous

Picture #
Time Up Time Down (0000 h)
Time Up (0000 h)
Height (m)
Length (m)
Longitude

2650 2055

nabat	Net/Trap/Anabat Net/Trap Type¹		Latitude			Longitude	de	Length (m)	H F
	N	0	15 . 6	· Z	63.	. 4	W" 8.30	0	9
	W	0 113	0.5	N. 5.9	43.	30	Ma Li &	0	P
	N	•	15 - 51	Na .	43.	.00	30.2 W	7/	0
	NO	117	5 5	6.9	83	00	31.7	0	9

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1	
	iption
	Descr
	/Site
-	Placement
4	
	Ne

Capt N	Net Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	(mm)	(F/M/E)	Wing Index* (0-3)	Picture # /Guano/Hair Sample
	Lecistae horas	2125	AL	F	71		39	E	0	882-883
-		07/2	And	4	78		95	N	0	
-	The second	7140	AA	X	>	16,75	5	14	0	
-	K Good	0412	Ad	P	7	17 6	18	(3)	0	
-	F Fire US	2/50	130	U	NA	7 6	18	H	0	
	T. King and	22.16	五	4	70	15,23	60	M	0	884
F	2 4/8/m8	3340	3	W	<	15.5	77	m	0	
-	4 500000	OHEE	TOF	12	70	6.5	45	2		
	2 F. F. S. G. S.	0520	75	2	Ł	V	200	2	0	
-	4.000	Chic	ACI	L	70	5.8	45	L	0	

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat * Refer to table on the back



BAT CAPTURE DATA (continued)

Initials:

Site Name/#

Project Name:

Project #:

Date:

Picture # /Guano/Hair Sample Comments Wing Index Key which is often visible only with translumination. 813 chiropatagium are evident. Wing Index* (0-3) (F/M/E) Apr 6 May 5 Jun 4 Jul 4 Aug 2 Sep 1 Sep 1 Sep 1 Oct 30 Nov 28 (mm) 2010 Lunar Phases Mar 29 Apr 28 Jun 26 Jul 25 Aug 24 Sep 23 Oct 22 Nov 21 ¥ (6 12 Mar 23
Apr 21
May 20
Jun 18
Jul 18
Aug 16
Sep 15
Oct 14
Nov 13 First Quarter Repro.² Apr 14

Mar 15

Apr 14

May 13

Jul 11

Aug 9

Sep 8

Sep 8 New Sex (M/F) Age (Ad/Jv) Large branches in motion; telephone wires whistle; umbrellas used with difficulty. Whole trees in motion; inconvenience in walking against wind Wind felt on face; leaves rustle, ordinary wind vane moved by wind Leaves and small twigs in constant motion, wind extends light flag. Raises dust and loose paper: small branches are moved. 0500 Small trees in leaf begin to sway, crested wavelets on inland water 23151 5 145 Time 0 Direction of wind shown by smoke but not by wind vanes Breaks twigs off trees; generally impedes progress Visible Condition Beaufort Wind Scale C Species MANNER PUSCA Moderate Breeze Strong Breeze Moderate Gale Fresh Gale Description Calm Light Air Light Breeze Gentle Breeze Fresh Breeze Net Wind Speed (mph) 0 4-7 8-12 13-18 19-24 25-31 32-38 39-46 Capt 0 S C



NET SITE HABITAT DESCRIPTION

Project #	#: 340	Dat	e: 7/2//11	_ 1	Biologi	ists: A. Kaio	uski B	t. farmer
Project I	Name: Repu	iblic			Site Na	me/#:3		
State: 0	OH Co	unty: Sand	uskur?		USGS	Quad: Fire	side	
Net/Trap/ or AnaBat	Net/Trap/ AnaBat Serial #	La	ntitude		Lon	gitude	Picture #	Waypoint #
A	ne+	41.14	50.3 "N	82	57	13,5 "W	106-0664	340-3A
B	net	41 014	'51.4 "N	82	57	1319 W	106-0665	340-38
C	net	41 .14	'5/.1 "N		57	15,7 "W	106-0663	340-3C
-D	net	91 . 14	'51.1 "N	85		17,5 W		390.30
	to closest wate ource name:		ers): <u>500 m</u>	-	Туре	e of water sou	rce: <u>Jine</u>	am
			ACTEDICTION	ZIE LIN	DED N	ETON ALIA	-	
11/5-27-27-27-1	TED WATER SO		147.7.77					
	ight:m						Control of the last of the las	ers
	um:Bedroo							
West of the second	er Present (Y/N)): Av	erage Water De	epth:	m o	r cm Clarity	(H,M,L):	2
VEGETA		oo /> 10 pm/1	a" dbb)	Cubdo	minant	Canony Space	ion / 10 on	0/16" dbb)
A	t Canopy Speci	es (> 40 cm/ n	o" dbh)	The state of the s	ya c	Canopy Spec	des (~ 40 cm	ii io abii)
-	us alba)			
- OCT	20120			-				
Estimate	d dbh range: L	g: <u>80</u> Sm	: 40	Estima	ted dbl	n range: Lg:	50_ Sm	25
Relative	abundance of d	ominant vs. su	ıbdominant (rati	io):_//	4			
	d canopy closur		Closed	1	,		te	Open
Roost tre	e potential cons	sists of:	✓ Large T	rees		Snags		Neither
Roost tre	e potential for t	he area is:	High			<u></u> ✓ Modera	te	Low
Roost po	tential commen	ts: 1015	of shoots	ark	hick	corn		
Subcano	py clutter:		Closed			Modera	te	Open
Subcano	py comprised la	rgely of:	Lower E	Branche	s of	Sapling	s	Shrubs
		90.4.10	Canopy	Trees		-		
Commor	Subcanopy Sp	ecies:	her sacc	hari	my			
		_						
Habitat E	Description: 10	pical o	at / hirkory	of us	land	woodlot		
AnaBat H	Habitat:							
Check al	I that apply:							
	e Upland Forest		y Logged Fores			asture Land	01	her
	Upland Forest Lowland Fores	Forest I Woodlo			Stream Vernal		-	
	e Lowland Fores Lowland Fores					ater Lake/Por	nd —	
	ous Cover:	Sparse		-	Dens			
5								



Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

NET SITE HABITAT DESCRIPTION (continued)

roject #: 340	State/County:		Site Name/#: 3	Initials:
		SKETCH: NETS A and AnaBat (if	A and B used)	
N Á				
- The second			/	
	1 6	Toodlot	-	
NO A	9 4 00		5 ,	
		12 12	(R)	
	7			
+				
,	House		6	
7	-	1,		
1		3	Trails A) or
Road	- >			20/2
Q =				
	Cro	pland		
LEGEND			COMMENTS	
ets:	-			
	-			

Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

BAT CAPTURE DATA

County: Sa Site name/#: Camera #: Date: Project Name: Republic Biologists: M. Formor Project #: 340 GPS Unit #: State:

Wind Speed (estimated – see chart)*	% Cloud Cover (estimated)	Comments
5-		
5-	0	
-	E	
1-7	0	
1	0	
0	0	
0	0	
0	6	
0	0	
0	0	
0	0	
0	0	
	0000000	0000000

ıt#	A	0	V	0
Waypoint #	340-3	340-3	340-3	340-3
Picture #	106-0664	106-0665 340-301	106-0663 340-30	08-08EE 340-301
Time Up Time Down (xxxx h)	205	210	203	215
Time Up (xxxx h)	2104	2106	2100	0112
Height (m)	0	0	0	0
Length (m)	0	0	0	0
Longitude	82.57.13.5 "W	W" P 2 : 13.9 W	W" 7, 27 , 52° 28	M. 5-11. ES. 22
Latitude	N. 8+05. 61. 17	Nu h'15. 61 . 15	N. 1-15. hlolb	N. 1 15: 61: 15
Net/Trap/ AnaBat Serial #	net	y=u	Het	Tor
Net/Trap/ or AnaBat	A	M	V	A

Net Placement/Site Description:

Capt #	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	(g) Wt	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
7	0	Lesicions borealis	2125	5	1	22	10.3	77	14	S	
7	X	T. Luscus	2215	4%	u	74	17.5	66	u	Ø	
w	X	E. Lysers	2215	DA	E	+	14:0	ナナ	S	8	
7	4°	E. Liscos	2218	DD	3	+	16.1	40	n	b	
5	4	F. frac v.s	2326	Asl	Z	*	0.0	53	M	A	
0	0	to S.E	2335	3	5	K P	0.0	34	U	Ø	
1	C	17, Luk:	2335	5	5	<	2.8	26	E	Q	
n	7)	E. fuscus	2343	200	Σ	4	15,(47	M	Ø	
5	V	E P. S. K	SASS	B	5	7	19.5	46	1	Ø	

¹ Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓ * Refer to table on the back



BAT CAPTURE DATA (continued)

7/2/1

Date:

340

Project #:

Project Nan	Name		Site Nan	Site Name/#:					Ξ	tials:	
Capt #	Capt Net	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	-	RFA (mm)	Belly (F/M/E)	ly Wing Index* (E) (0-3)	Comments Picture # /Guano/Hair Sample
9)	O	E. f. sc. 5	2400	B		242	4.4	2	1	0	
*	**										
								1			
									•		Doctorio

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarmg is visible without translumination. Membrane exhibits some necrotic tissue and possibly few small holes (<0,5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
es	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

Smoke rises vertically

Direction of wind shown by smoke but not by wind vanes

Wind felt on face; leaves rustle; ordinary wind vane moved by wind

Leaves and small wings in constant motion; wind extends light flag

Raises dust and loose paper; small branches are moved

Small trees in leaf begin to sway; crested wavelets on inland water

Large branches in motion; lelephone wires whistle; umbrellas used with difficulty

Whole trees in motion; inconvenience in walking against wind

Breaks wigs off trees; generally impedes progress

Calm Light Air Light Breeze Gentle Breeze Moderate Breeze Fresh Breeze

0 1-3 4-7 8-12 13-18 19-24 25-31 32-38 33-46

Strong Breeze Moderate Gale Fresh Gale

Visible Condition

Description

Wind Speed (mph) Page 2 of

Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

BAT CAPTURE DATA

Project #: 340 Date: 7/3
Project Name: Regulatic
Biologists: 4: Kniowski Site name

Site name/#: Sund sakey

Camera #:

1

GPS Unit #:

State:

Comments							9				
% Cloud	20%	10%	0/2	0%0	0	0	0	0	0	0	0
Wind Speed	1-3	0	0	0	0	0	0	0	0	133	- i
Temp (%C)	24.0	23,7	83.0	22.8	22.5	22.5	22.9	5.22	22.0	22,1	22.0
Time (xxxx h)	2130	2200	2230	2300	2330	000	030	100	120	200	230

Net or A	Net/Trap/ or AnaBat	Net/Trap/ AnaBat Serial #		7	-atitude				Longitude	tude			Length (m)	Height (m)	Time Up Time Down (xxxx h)	Time Down (xxxx h)	n Picture #		Waypoint
X		het	. //>	14	05 .	3 "N	8	0	X	S	10	>	0	8	2129	238	1590	39	340-34
Est		Me 1	0 1/2	11	15.	N, h	82	0	N	13	6	>	0	0	2127	237	3990	34	10-3B
N		100 +	· 1h	14	. 51.	Z	28	1. 5.31. 55.	7	Vi.	M. E	3	9	0	2125	228	0663	34	6.3 €
A		nct	· 15	14	15.	Z.	83	5.51. 72.58	N	17	5	>	50	0	2120	221	9999	39	340.30

Net Placement/Site Description:

Capt Net/ # Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
V	L. borealis	213.3	3	L	SP	216	0/2	Ш	Ø	
20	L. borcalis	2(150	()	Le	NR	t is	05	E	D	
V	E. Fuscus	2/55	F	101	4	16.2	53	M	B	
V	E. Evecus	2157	Lol	M	4	15.4	5%	n	d.	
J	E. 135015	2335	44	4	10	21.0	53	hat	B	
V	L. borealis	5886	1,1	Z	M	80	43	BY	B	
U	E 1-6,50-45	2337	1	N	NR	13,2	hh	M	B	
X	E. E. COV	15.0	27	10	250	15:01	55	H	d	
U	L'horos l's	0)70	3	M	NR	7,3	88	M	Ø	

¹ Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓ * Refer to table on the back



Project #: 340

BAT CAPTURE DATA (continued)

Picture # /Guano/Hair Sample Wing Index* (0-3) Initials: Belly (F/M/E) RFA (mm) ₹ (g Repro.² Sex (M/F) Age (Ad/Jv) Site Name/#: 2 Time Visible Condition Species Description Project Name: Capt Net Wind Speed (mph)

Large branches in motion; telephone wires whistle; umbrellas used with difficulty Whole trees in motion; inconvenience in walking against wind Breaks twigs off trees; generally impedes progress.

Strong Breeze Moderate Gale Fresh Gale

Small trees in leaf begin to sway; crested wavelets on inland water

Smoke rises vertically
Direction of wind shown by smoke but not by wind vanes
Wind felt on face; leaves rustle; ordinary wind vane moved by wind
Leaves and small twigs in constant motion; wind extends light flag
Raises dust and loose paper, small branches are moved

Calm Light Air Light Breeze Gentle Breeze Moderate Breeze Fresh Breeze

0 1-3 4-7 8-12 13-18 19-24 25-31 32-38 39-46

TOT	
TOT	

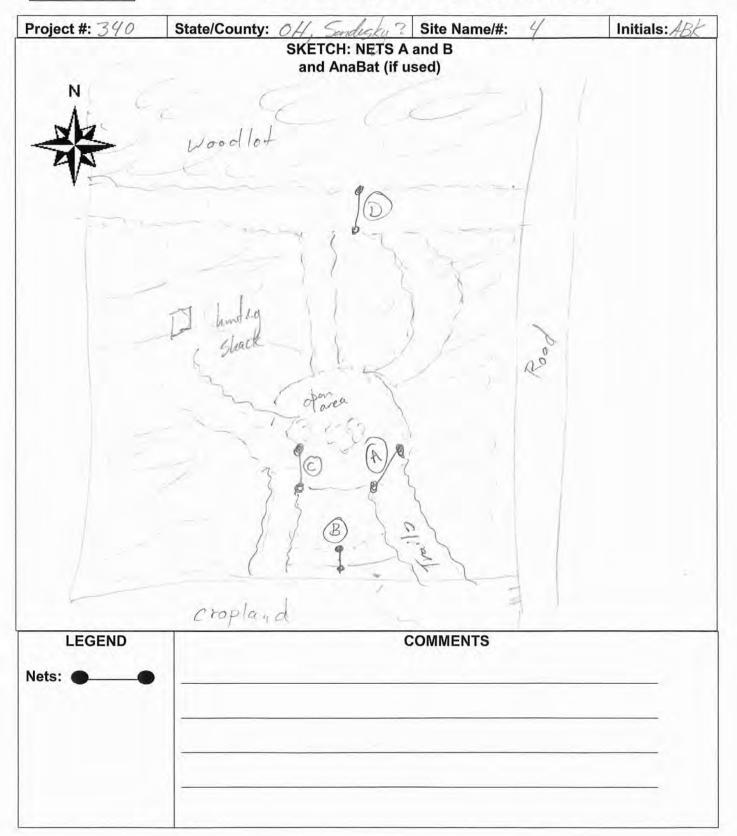
NET SITE HABITAT DESCRIPTION

Project #: 340	Date:	7/27/11	Biologis	ts: Andrew	Jen 50	Sian
Project Name: Papaloli		1	Site Nan	ne/#: 4		
State: 0 6 Coun	1	len 7	USGS Q	uad: Fire	side	
Net/Trap/ Net/Trap/	Latitud	/		tude	Picture #	Waypoint #
or AnaBat AnaBat Serial #	11 014 . 6	72.3 "N Q	7 . 66	14.6 "W	0672	34044
				14,9 "W	0673	340BG
	7.1			15,4 °W	0674	340C1
D net	V	5.0 N 8		14,8 W	6675	34014
Distance to closest water s	source (meters)	: 400	Type	of water sour	ce: Stron	zbri_
Water source name:			_	4		
ESTIMATED WATER SOL		TERISTICS (IF	UNDER NE	ETS): N/A		
Bank Height:met	ors Channel	Width: r	neters S	tream Width:	mete	ers
Bank Height:met	els Chamici	Cabble	Graval	Sand S	Silt/Clay	
Substratum:Bedrock	Boulder	Copple	Graver _	_SandC	/III MII V	
Still Water Present (Y/N):	Avera	age Water Depth	:m or	cm Clarity	(H,IVI,L):	-
VEGETATION:						
Dominant Canopy Species	s (> 40 cm/16" d			Canopy Spec		
Queveus rubro			Jug lans	nigra		
Juglans higro	A.					
Relative abundance of do Estimated canopy closure Roost tree potential consi Roost tree potential for th Roost potential comments Subcanopy clutter: Subcanopy comprised lar	e: ists of: ie area is: s: <u>large</u> rgely of:	ClosedLarge TreeHighClosedLower Brai Canopy Tre	nag on	Modera Snags Modera Modera Modera Modera Sapling	te	Open Neither Low Lorg Open Shrubs
Common Subcanopy Spe	Small wood	leer sact	harum			
AnaBat Habitat: NA			1			
Check all that apply: Mature Upland Forest Young Upland Forest	Recently X Forest Ed	Logged Forest		Pasture Land n/River		Other
Young Upland Forest Mature Lowland Fores	The state of the s	.90	Vernal	Pool		
Young Lowland Fores	1		Deepv	vater Lake/Po	ond	
Herbaceous Cover:	_Sparse _	Moderate 1	Dens	se		



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NET SITE HABITAT DESCRIPTION (continued)



Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777) WEATHER DATA

BAT CAPTURE DATA

Site name/#: Date: Project Name: Repul Andrew 340 Biologists: Project #:

County: Source Camera #:

GPS Unit #:

State:

nents					30.00klus							
Comments					Lide!	5						
% Cloud Cover (estimated)	20%	2%	50%	50 %	2008	100%	100%	0000	10001	100%	0/0000	
Wind Speed (estimated – see chart)*	4-4	4-7	4-4	4-17	ローロ	オーカ	MIM	8-12	21.3	21-8	2-15	
Temp (°C)	25.K	74.3	7.46	74.6	24.6	1.62	74.1	24.7	NI W	77.4	250	
Time (xxxx h)	71:30	00.00	77:30	23:00	73:38	000	05:00	00!	330	7:00	2.30	

	0672	0673	1290	5290
Time Down (xxxx h)	022	225	230	237
Time Up Time Down (xxxx h)	2135	2125	2127	2130
Height (m)	6	0	6	b
Length (m)	9	9:2	0	9
	M"	M.,	M.	M _a
-ongitude		14,9		
Long	95.28	82.58	82.58	
Latitude	. 57.3 "N	N. 5.15.	N. 7 . 75.	N. 0:55.
La	h1 . 1h	11.15	h) . 1h	h1 . 1h
Net/Trap/ AnaBat Serial #	net	nct	+3	net
Net/Trap/ or AŋaBat	X	B)	0

Waypoint #

34089 24000

Net Placement/Site Description:

Capt #	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (9)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
		E. (USCUS	21:45	15	4	ZZ	17.7	20	3	0	
2	,	E. Fuscus	sh:12	2	Se la constant de la	2	14.2	94	611	0	
~	2	E. FUSCUS	51:12	00	M	->	15.7	N	(1)	0	
7	U	E. 405005	21:45	V	W	->	1.9	917	Ш	0	
L	2	F. Fuscus	31:12	P V	A	->	16.2	SH	(4)	0	
0	V	F. GSCUS	21:45	40	F	- →	15.4	250	111	0	
1	~	L. Berialus	22:18	PV	4	7	[7.3	74	A	0	
6	A	L. Birialus	22.15	20	+	NR	9,6	40	N	0	
6	J	F. 405005	22:20	1	2	→	75	NI	11	C	

* Refer to table on the back ¹ Reproductive Condition: Female = NR/PG/L/PL; Male = $\uparrow \downarrow \downarrow$

Page 1 of



340 Project #:

Date:

BAT CAPTURE DATA (continued) Z 111

Proje	Project Name:		Site	Site Name/#:	-B	7			Ē	Initials:	JBK 1
Capt #	Net #	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
0	J	£ , {USCUS	22.30		3	NR	14.7	Y-	3	0	
	U	F. 605005	97:76	マサ	Y	72	17.7	9 h	(1)	2	
17	12	E. fuscus	\$2;39	2	K	NR	13,5	44	11)	0	
N		F., FUSCUS	32:35	ては	7	-7	15,2	7	14	0	
IT	J	E. FUSCUS	22.50	>	4	NR	200	84	3	0	
10	V	F. (2500S	27:50	V	1		(9,77	78	17	0	
9	J	F. 1350.5	72:50	てせ	4	(J	18.2	76	V	0	
E	0	1 FUSEUS	22.50	P P	2	· C	8.2	77	J	0	
000	V	E. 105605	8:30	X	7	7	26.5	27	H	0	
5	_	E. 645005	22:55	77	d	2	19.4	SY	4	0	
3	J	E. 10505	23,70	AA	J	YN.	70.6	37	4	0	
0	J	F. 635CUS	23,20	NA	4	1	21.6	47	7	0	
20	J	E, (USCUS	23:22	NO	4	٦	17,6	76	E Comment	0	
0	(to Guscus	00,73	Ad	2	7	141	57	Y	0	
E		F. 10500S	201,25	120	+	2	85)	9%	4	0	
5	10	E GUSCUS	0/./	1	8	d	L.	200	N	0	
0	4/	F. Fuscus	1:40	>-	X	N Z	14.9	25	ب	0	Trave 172, 1205
2	T	61. 502	9:50	1	1	NR	5:5	(2)	152	0	
20	T	M. Lol:	235		A	Z	7.7	37	1.1	0	

			l by wind	ight flag		nd water	llas used with difficulty	pui	
Visible Condition	Smoke rises vertically	Direction of wind shown by smoke but not by wind vanes	Wind felt on face, leaves rustle, ordinary wind vane moved by wind	Leaves and small twigs in constant motion, wind extends light flag	Raises dust and loose paper, small branches are moved	Small trees in leaf begin to sway; crested wavelets on inland water	Large branches in motion, telephone wires whistle, umbrellas used with difficulty	Whole trees in motion; inconvenience in walking against wind	Breaks twigs off trees, generally impedes progress
Description	Calm	Light Air	Light Breeze	Gentle Breeze	Moderate Breeze	Fresh Breeze	Strong Breeze	Moderate Gale	Fresh Gale
(mph)	0	1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarring is visible without translumination. Membrane exhibits some necrotic tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may
2	be flaking and discolored along the majority of the forearm.
er.	Heavy damage. Deteriorated wing membrane and necroitic tissue. Isolated holes >0.5 cm are present in membranes. Necroitic or receding plagiopatagium and/or chinomatanium are environt.

Property of: Environmental Solutions & Innovations, Inc. 781 Neeb Road. Cincinnati, OH 45233 (Phone: 513-451-1777)



BAT CAPTURE DATA

Project #: 340 Project Name: Reg	Date: 7/29/11	County: Sandusky	iouski J. Keinner	4.4	Camera #-
----------------------------------	---------------	------------------	-------------------	-----	-----------

MOON PHASE*

New moon Waxing gibbous Last quarter

First quarter Waning gibbous Waning crescent Waxing crescent Full moon

Time	(Jo) amat	Wind Speed	Wind Direction:	% Cloud	Comments
(0000 P)	(o) dilla	(estimated – see chart)	From to	1 me//1	
2100		1		30/1/	
0710				- C X	
1				1 CO CO CO	
2200					
02720		-Y			
1000			1		
1000					Total State
2330					
MAN			1		-
3		2	1	0/0	
000				DOS	
001		1		1000	
120		× ×	1	0 70	
2007			1	200	
200					
-					

				Longth	Height	Time Up	Time Down	Picture #
Mot/Tran/Anahat	•	abitito	Longitude	(m)	(m)	(H 0000)	(H 0000)	
Net Hapirona	ed Haplander NetTrap Type				77	00,00	92	2478
#		000	1/1/	N	0	100	7	00
	1000	N. Y. Z. Y. O. IO	1	2	-	CHEC	000	アイナン
*	liet.	N. V.	6.111 .	0.0	0	000	404	1,00
, ,	100	N. 50 5 . 510 17	1 1 1 1	1	0	ロンシワ	DO E	シナク
9	NEED	1 C 2 THE		0	-	4007	101	000
	MC	N 1 2 2 2 1/2	010	7	5	2012	220	0875
	100	0 22 0		۵)			
	Tar.	100						

Comments

Net Placement/Site Description:

1			Age	Sex	Repro. 2	, M		Delly	Ming illack	Picture # /Guano/Hair Sample
Capt Net	Species	еш	(Ad/Jv)	(M/F)		(6)		LIMITE)		
* (1 Russilet	21:18	Ad	4	PL	7,7		E	0	The second secon
الا	11.7.2	21.28	1 ×	2	->	14.7		1	0	
1	100000	36	7	2	4	30,3		٤	0	The second secon
A	TI FUSCUS	7 7 7	2	2	-	16,5		I	0	the second secon
9	E, 105CUS) W	37	Z	-	15.5	97	3	0	
	TO TO TO	7235	A	Z	7	15.5		LIN	0	Carried and the second of the
21	T + 12500	18.18	A	1	ام	20.0		1	0	The second secon
٧	ところこと	12.50	2	٤	N	16.5		۷	0	Alternative to the second seco
)	1201)								Company of the contract of the

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap, A = Anabat * Refer to table on the back

Reproductive Condition: Female = NR/PG/L/PL, Male = 1/L

Page 1 of



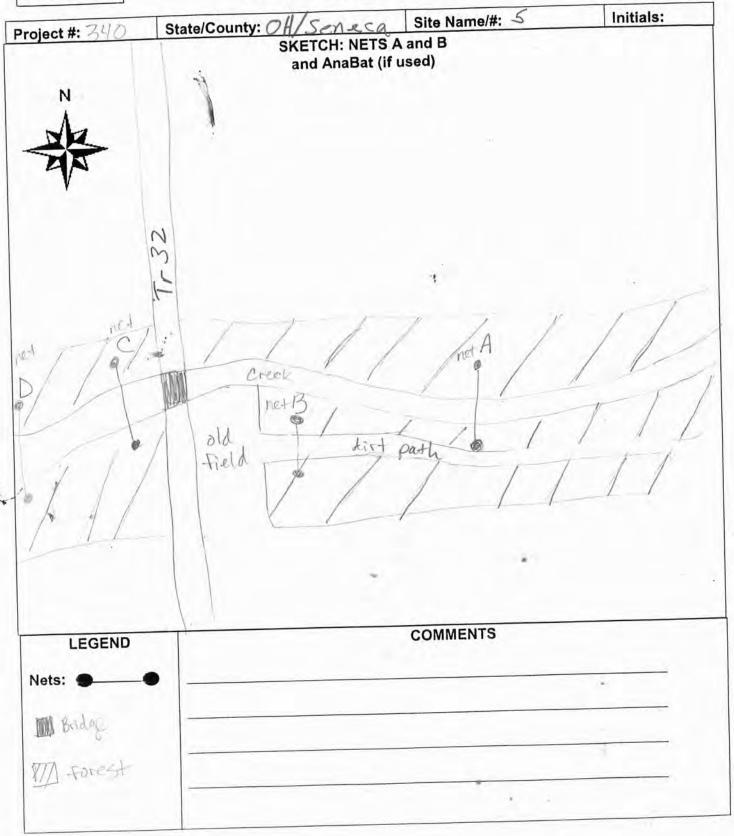
NET SITE HABITAT DESCRIPTION

Project #	340	Date: 19-	Jul-11 Bio	logists: 8. Basig	er 3. Cay	Hair
Project N	Name: John-	edicepublic	Site	Name/#:		
State: 0	/ /	unty: <u>Seneca</u>	USC	GS Quad: 1/0	tson	
Net/Trap/	Net/Trap/ AnaBat Serial #	Latitude		Longitude	Picture #	Waypoint #
r AnaBat	Allabat Seliai #	41 . 13 . 41.4	N 83.6	2 '34.L "W	2999	~
NZ-	3	111 0 13 , 114	5"N 43.6	D 140,0 "W	3000	1
MAL	Č	41 . 13 . 32.	1 "N +33 ° C	2.415 W	3002	_
10-1	D	41 . 13 . 41.	"N 83 °		3004	
		r source (meters):)	ype of water soul	ce: / Tree -	
	urce name:					
		OURCE CHARACTE			1.1	
lank He	ight:m	eters Channel Wid	dth:meters	Stream Width:	mete	ers
ubstrati	um:Bedro	ckBoulder	Cobble <u>X</u> Gravel	XSandS	Silt/Clay	
Still Wate	er Present (Y/N): Average	Water Depth: 30	m or cm Clarity	(H,M,L): <u>/</u>	2
/EGETA						
04,5,45,77		ies (> 40 cm/16" dbh)	Subdomin	ant Canopy Spec	ies (< 40 cr	m/16" dbh)
		1 alis	- Linking.	s prinsylvanic	a Minus	america
perclu	3 deltoides		Tilliam	ericula Jugla	ris migra	
1			Acerson	charups, Assu	clus glat	A31
Stimate	d dbh range: L	g: 100 Sm: 50	Estimated	dbh range: Lg:	39 Sm	20_
		lominant vs. subdomi				
	d canopy closu		Closed	Modera	te 🔀	Open
	ee potential con	The second second	Large Trees	<u></u>		Neither
	ee potential for		 High	Modera	te	Low
	otential commer	4.4	e snage W/	loose box	k	
	opy clutter:	is. Trany way	Closed	∠Modera	te	Open
			_olosed CLower Branches of			Shrubs
subcano	ppy comprised la	argely or:	Canopy Trees	Saping	_	Omaco
Commor	Subcanopy Sp	nocios: Assessment	egundo			
Johnnoi	1 Subcarropy S	Decles. W	guitae			
		W 1	1.7 - 1.1 -	111	to an I do not	
	011	parlan through to	restra costilar	surrounded by-	(by mound	
AnaBat I	Habitat: N/A					-
	Il that apply:	. Assessment		no/Dooture Land	0	ther
	e Upland Fores Upland Forest			pp/Pasture Land eam/River	_0	ther
	e Lowland Fore			rnal Pool		
	Lowland Fore	The state of the s	De	epwater Lake/Por	nd	
Herbace	ous Cover:	Sparse XM	oderateD	ense		
Revised An			1			



Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

NET SITE HABITAT DESCRIPTION (continued)



BAT CAPTURE DATA

Property of: Environmental Solutions & Innovations, Inc. 781 Neeb Road. Cincinnati, OH 45233 (Phone: 513-451-1777)

Comments

% Cloud Cover (estimated)

2

From

(estimated - see chart)*

Temp (°C)

166 0810

(4 0000)

WEATHER DATA Wind Direction:

Project #: 2 10	1	Date.	1000
Project Name: Tetra tech Lupub	tech	Lepubli'c	7
State: OH	County:	County: Servico	
Biologists: Erin Dasiger; Alexa Count	SASISA	or: Alpxa	Cantt
Site name/#:			

3300 336

3330

MOON PHASE* Waxing gibbous Last quarter New moon

First quarter	Waning gibbous	
Waxing crescent	Full moon	Waning crescent

		Picture #
		Time Up Time Down (0000 h) (0000 h)
	N.	Time Up (0000 h)
	**	Height (m)
		Length (m)
WS 0320 93.8		Longitude
noddig gni		

S O 0

2

3 3

2999

2	2	11/1/1/1/1	1	11	Z ノイナ	- P. C			7)	000		
100	7	40-5	410	. 71	N" 1 LZ	020	21/4. 5	M _"	2	9	2048	3100	2002

Mu ?

0

AI SIN

N

4

Latitude

Net/Trap Type¹

Net/Trap/Anabat

A ESTISION FUSION 2131 Ad # C	(111111)	(1 mm/L)	(00)
1195 2081 2195 2195 1 1195 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	110.5 344	£	0
MINDTIS LUCIFUANCE 21 FT Ad M. A	12.7	(1)	0
	451	0.	3002 - 3008
A Mints I. Mark TITG A CI	7,0 36	400	
A Mints I was 7157 No.	(5 35	W.	0
* N1525 1158 AS # . PL	9,0 36	. 9	0
19 4 By 212 JUDIUS JUST A F PL	8.0 210	E	
X Miletis WORLINGS WAY ASI F PL	70 36	七	
A Myoris Winsons 2232 And F DL	9.5 36	1	0
Ment (+10 transports 77:30 Ad M	80 35	X	0





Project #: 340

BAT CAPTURE DATA (continued)

Cant Not	300000000000000000000000000000000000000	alle	one Name/#.	1				n.	Initials: 220	
¥ *	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (a)	RFA (mm)	Belly	Wing Index*	Comments
) <	Myorks 10c1 frogus	22.90	Z	4	NIZ	600	74	W	6	ricture # /ouano/Hair Sample
X.	EPTISIUS RISIUS	26:22	AC	3	6	0.61	410	1	0	
1	Myohs hockbooks	27:48	NON	4	10	1	1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \)(
1	TOXISTON PUSCUS	7248	KA.	1	đ	712	00	1) (4
4	Milets Nocituals	77.78	7	14	0.0	90	00	1 1) c	105 \$ 3010
*	My 100 40905	25:00	1	V	K	000	300	1/1	20	
	ERYISLUS RUSLUS	73.10	200	L	010	5	40	7/1/	00	
	ANNOHY SCOTONORIS	57.376	FA	1	~	200	10	Ta.	30	
4	Epticus Fuscin.	25年	PA	11	10	74 13	1	3	20	2001 2 5016
4	Myorks Nuchasus	34 38	PA	17	PC	000	3/0	1	36	
3	Letter of Puscos	24.50	Ad	4	9	30.0	500	1) -	
I a	MYOHIS NOTHINGUS	24.1%	Ach	14	PL .	0.5	310	12	- (
5	LOT STUS +USCUS	24:18	Ad	V	6	0,2	44	5	0	
1	1.8 STUTUS BOY WALLS.	34130	7	17	N. S.	0.0	44	V	C	20110 x 2013
at .	Mybhs Soptonional	061.30	Ad	4	Pt	9.0	3/6	1	10	NO 8 3017
0<	Myons highway 12	82110	3	11	NR	0.4	28/	1	00	
J	Ephlscus Austris	14:10	8	1	Ja	77.0	40	3	C	
X	Ephiszus tusous	01:42	ス	N	NR	0.4	400	· VV	0	

	13
Canil	2000
lind.	
VI to	25
Zoorif	מממ

Wind Speed (mph)	Description	Visible Condition
	Calm	Smoke rises vertically
	Light Air	Direction of wind shown by smake but not by using yourse
	Light Breeze	Wind felt on face: leaves nistle- ordinary wind was mound
	Gentle Breeze	Leaves and small twins in constant motion, used extends link and
13-18	Moderate Breeze	Raises dust and lonce paper small branches are mount
19-24	Fresh Breeze	Small frees in leaf begin to swarr preshed univolate or inford
	Strong Breeze	Large branches in motion: telephone wires which compared the state
	Moderate Gale	Whole trees in motion: inconvenience in walking against used with difficulty
	Fresh Gale	Breaks twice of trees: penerally impedes process

2010 Lunar Phases

New	First Quarter	Full	Last
Feb 13	Mar 23		Apr 6
Mar 15	Apr 21		May 5
Apr 14	May 20		Jun 4
May 13	Jun 18		Jul
Jun 12	Jul 18		Aug 2
Jul 11	Aug 16	Aug 24	Sep 1
Aug 9	Sep 15		Sent 30
Sep 8	Oct 14		Oct 30
Oct 7	Nov 13		Nov 28

Wing Index Key

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarring is visible without translumination. Membrane exhibits some necrotic tissue and possibly few small holes («1,5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
m	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes -0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or rehimmatanium are present in membranes.



Project #: 340	Date: 19-56	11-	
Project Name: Tetatch			
State: DH County	County: Senera	,	
Biologists: E. Busiaer S	Captani		
Site name/#: SO			
GPS Unit #: 9523	Camera #: Som	Ve	1

MOON PHASE*

New moon	Waxing gibbous	Last quarter

Waxing crescent Waning crescent

Time Temp (°C) (estimated - see chart)* From to Cover (estimated) Cover (estimated)			8	WEATHER DATA		
24.9 1-3 22.9 1-3 32.9 1-3 32.9 1-3 32.1 1-3 32.5 1-3 32.5 1-3 35.1 1-3	Time (0000 h)	Temp (°C)	Wind Speed (estimated – see chart)*	Wind Direction: From to	% Cloud Cover (estimated)	Comments
25.9 1-3 22.4 1-3 22.4 1-3 22.4 1-3 22.5 1-3 22.5 1-3 22.5 1-3 22.5 1-3 22.5 1-3 22.5 1-3	2100	3	1,1	1	100	
25.9 25.9	2138	28.1	0)		
26.9 1-3 26.4 1-3 26.4 1-3 26.5 1-3 26.5 1-3 25.1 1-3 25.1 1-3 25.1 1-3 25.1 1-3 25.1 1-3	8	4.6	0		16%	
26.7 1.3 26.6 1.3 26.5 1.3 26.5 1.3 28.1 1.3	230	26.9	113	l	10%	
2264 1-3 28.5 1-3 25.5 1-3 235.1 1-3		7.76	1-3	1	25	
26.5 26.5 25.4 25.4 4.7 23.4 4.7	330	266	2	\	SS	
35.1 1-3 35.1 1-3 23.4 4-7	0000	31.5	1.3		35	
23.4 4.7	3036	36.5	(-3	1	40	
23.4 U-7	00	25.1	27		250	
	080	23.4	4-7		35	

t Time Up (0000 h)		. Dr34	SUNCY
Height (m)	6	9	1
Length (m)	121	0	(5)
Longitude	43 ° 62 ' 38,6 "W	83 ° 02 ' 90,0 "W	Mr 7 17: 00 . 24
Latitude	N. 87/7: 51 0 1/2	N. 5 14 5 14	NII (2: 2/ 0/7)
Net/Trap Type1	184	Pr Rot	2000
Net/Trap/Anabat #	A	00	0

Picture #

Time Down (0000 h)

5/10 0510

3000 2999

3002

5510

Net Placement/Site Description: All across

Capt #	Net #	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	(mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	17.	Mash's westimus	SHC	200	Ų.	NR	8.8	35	m	0	
57	-	Explicit Wars	346	15	PM.	÷	7.11	17/7	W	C	
83	d	E fingris	010	AN	N	>	14.0	26	2	0	
	-	P. Augens	61160	1	M	<	16.2	45	SIS	· ·	
10	1	Modis hichaus	2002)					ad a		DON CECARE
10	4	Months Lucificans	200	30	M	4	1.6	36	T	0	
	A	Estesiens fuscuis	2030	35	<i>y</i>	5	0	45	n	0	
7	×	Months INCituans	2305	Ad	1	78	10,5	37	i m	0	
0	A	E, Fuscus	2310	Ad	M	>	17.5	46	7,	0	
0	4	E. 145C43	2335	3	U	NR	12.7	43	130	0	

' M = Mononilament, ON = Old Nylon, NN = New Nylon, H I = Harp Trap; A = * Refer to table on the back.

0200 · D ret 418/41,4" 45°0244.1" 9x6 2048

500c Pict.



Project #: 340

BAT CAPTURE DATA (continued)

Date: O O ...

Picture # /Guano/Hair Sample Comments 3057 3054-Wing Index* (0-3) Initials: ϵB 0 0 0 0 Belly (F/M/E) W 8 RFA (mm) W 8,0 30.1 ¥ (g 16 Repro.² 4 ō Sex (M/F) 5 Age (Ad/Jv) Site Name/#: 0100 2010 355B 2000 3256 Time Species LOSING CTOL EU FUSCAS Project Name: Tetrat Wet # Capt U

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Scale
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	Description	Visible Condition
	Calm	Smoke rises vertically
	Light Air	Direction of wind shown by smoke but not by wind vanes
0.1	Light Breeze	Wind felt on face; leaves rustle; ordinary wind vane moved by wind
	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag
	Moderate Breeze	Raises dust and loose paper; small branches are moved
	Fresh Breeze	Small trees in leaf begin to sway; crested wavelets on inland water
	Strong Breeze	Large branches in motion; telephone wires whistle; umbrellas used with difficulty
	Moderate Gale	Whole trees in motion; inconvenience in walking against wind
	Fresh Gale	Breaks twips off trees: generally impedes progress

2010 Lunar Phases

New	First Quarter	Full	Last Quarter
Feb 13	Mar 23	Mar 29	Apr 6
Mar 15	Apr 21	Apr 28	May 5
Apr 14	May 20	May 27	Jun 4
May 13	Jun 18	Jun 26	Jul 4
Jun 12	Jul 18	Jul 25	Aug 2
Jul 11	Aug 16	Aug 24	Sep 1
8 bny	Sep 15	Sep 23	Sept 30
Sep 8	Oct 14	Oct 22	Oct 30
Oct 7	Nov 13	Nov 21	Nov 28

Wing Index Key

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
,	 Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scaring is visible without translumination. Membrane exhibits some necrotic tissue and possibly few.gmall holes (<0.5 cm diameter). Forearm skin may be falsking and discolored along the majority of the bream.
	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or



NET SITE HABITAT DESCRIPTION

	ate: 19-04-11	Biologists: E. Pleaser	har with and
Project Name: Tetratech Rep	ublic	Site Name/#: 546	7'
State: OH County: Sene	Ca	USGS Quad: + Tresion	de
Camera #: Ein Picture #s: 3 Latitude: 4/ ° /3 '32 % Distance to closest water source (if Water source name: unamed prise	"N meters): 20 m	GPS Unit #: <u>E952</u> 4 W. Longitude: <u>83°01</u> Type of water source:	1 22 4 "W
ESTIMATED WATER SOURCE C	HARACTERISTICS	(IF UNDER NETS):	/A
Bank Height:meters C	Channel Width:	meters	h:meters
Substratum:BedrockBo	oulderCobble	GravelSand	_Silt/Clay
Still Water Present (Y/N):	Average Water De	pth:m or cm Clarit	y (H,M,L):
VEGETATION:			
Dominant Canopy Species (> 40 cm		dominant Canopy Species	
	Jugi	ans nigra Celtis ocri	dentatis
	Frax	nus pennsylvanica, Pop	ulus detoides
Estimated dbh range: Lg: S		nated dbh range: Lg: 35	and the second second
Relative abundance of dominant v	s. subdominant (ratio)· —	
		//	
Estimated canopy closure:		Moderate	<u></u> X Open
	Closed	Moderate	
Estimated canopy closure:	Closed Large Trees	Moderate	Neither
Estimated canopy closure: Roost tree potential consists of:	Closed Large Trees : <u>×</u> High	Moderate Substitute	Neither
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is	Closed Large Trees : <u>×</u> High	Moderate Substitute	Neither
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is Roost potential comments:	Closed Large Trees : <u>X_High</u> Closed	Moderate SnagsBoth Moderate Snags Moderate Moderate Snags	NeitherLowOpen
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is Roost potential comments:	ClosedLarge Trees :HighClosedLower Brance	Moderate SnagsBoth Moderate Snags Moderate Moderate Snags	NeitherLowOpen
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is Roost potential comments: Subcanopy clutter: Subcanopy comprised largely of:	Closed Large Trees High Closed Lower Branc Canopy Tree	Moderate sModerateModerateModerate	NeitherLowOpen
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is Roost potential comments: Subcanopy clutter: Subcanopy comprised largely of: Common Subcanopy Species:	ClosedLarge Trees :HighClosedLower Branc Canopy Tree	Moderate sModerateModerateModerate	NeitherLowOpen
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is Roost potential comments: Subcanopy clutter: Subcanopy comprised largely of: Common Subcanopy Species:	Closed Large Trees High Closed Lower Brance Canopy Trees Ulmus rubra	Moderate SnagsBoth Moderate Snags Moderate Shags Moderate Moderate Shags Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate	NeitherLowOpen
Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is Roost potential comments: Subcanopy clutter: Subcanopy clutter: Subcanopy comprised largely of: Common Subcanopy Species: Habitat Description: Young Upland Forest Pine P	ClosedLarge Trees :High ClosedLower Branc Canopy Tree Ulmus rubra Ulmus rubra ty into wardlo	Moderate SnagsBoth Moderate Snags Moderate Shags Moderate Ches ofXaplings Saplings Sa	NeitherLowOpen



NET SITE HABITAT DESCRIPTION (continued)

Project #: 340.02			Site Name/#:	Site 7	Initials: SR
		SKETCH: NETS A	and B	-1	parent
pond N		1 10010	-60	para	pr-7
WAL MIL		Leafy O on camp	around m	4	p
	D M	on comp	my my	in	
900	moved	my my	MATTE	777	пППП
144	1	-0000m		111	anno a Maria
N. N. W	~ M	- C.		2007/2007	3-3067-649
V	Carry 6		50 A A		
un ,u	- Bud	m Down William IN	nodlot 3		
pond	23%	" () / A STOCK		3-33-33	
u u	~ (3)	A - 233 Y		****	
XCA CA	13			35 Wood	bt 总数3
3033 Dicnic	ACCO	ATV.	016	الم وفي الم	0093
Pisnia A TOPIO	130000		TO DESCRIPTION OF THE PARTY OF		39.55.5A
	3039 16		300000000000000000000000000000000000000	2432630	
	13000	VIV -1	,	1	
1/	V	V	V	V	V
V		.16 ()	Y		, ,
	11	V obtield	A	V	
V	V	10	1		
					- V
		-		_ =	350
		Soyfield		-	
-	-			==1:	
V					
LEGEND		CC	DMMENTS		
Nets:	A11A				
					-
RVS:					
Snags: * Acture ###					
Dicture 1	-				
Anglo (+4)					
V					

Camera #: EB Kodak County: SUNICO Date: 19 - 5te Site name/#: Biologists: E Basinge, & Pantain Project Name: Tetra fect 95,28 Project #: 340.02 GPS Unit #: State:

		WEATHER DATA	ATHER DATA	
Time (xxxx h)	Temp (°C)	Wind Speed (estimated – see chart)*	% Cloud Cover (estimated)	Comments
3030	36.5	0	15%	
2018	26.2	0	10%	
2/30	23.4		.960/	
2200	24.0	C	30.00	
2230	23°C		%0	
2300	23,4	0	200	
33.30	23.0	0	0%	
5000	23.0	0	0.5	
DX 30	22.9	0	000	
0010	22.7	0	100 C	
0/130	22,4		0.80	
0200	22.2	0	0,50)
				-

				the contract of	1 11 11 11	(A) (A) (A) (A) (A) (A) (A) (A)	-						
Net/Trap/ or AnaBat	Net/Trap/ AnaBat Serial #	Latitude	de		Longitude	tude	Len	Length F	Height (m)	Time Up (xxxx h)	Time Up Time Down (xxxx h)	Picture #	Waypoint #
122	4	41.	19,7 "N	3	. 70	24 6 "W	0	7		2005	SH19	100	050
なっ	0	41.3.	Z	83.	. 10	M. 9.)	0	0.2	2050	0150	1	6170
1	9	41.3.	N. 1561	83	. 10	29.2 "W	7	0	2	2055	0155	3033	8/10
Not		41. 13.	20,5 "N	63	. 10	21.6 "W)	0	2.0	2100	0,200	3036	047
Net Placeme	Net Placement/Site Description:_	NES A.	2 2 0	MA M	trail	in Was	liot no	25010	(ulda	Sond.	VITO OF	mos con	bring of a
Capt Net/ # Trap	Spi	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. 2	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index*		Comments Picture # (Guano/Hair Sample	nts Hair Sample
						1	100	1	-	1			200

ZNU 3

3045 NA

2125

of is suptentional

2125

2120

* Refer to table on the back 1 Reproductive Condition: Female = NR.PG/LPL; Male = ↑↓

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Page 1 of ≥



BAT CAPTURE DATA (continued)

Site
0000
NAC.
VO
11
Smoke rises vertically Direction of wind shown by smoke but not by wind values Mind fail on face leaves nickle ordinary wind date moved by wind
Will left thin face response to the constant motion, wind extends light flag. Raises dust and loose paper, small branches are moved. Small trees in leaf begin to sway, crested wavelets on inland water.
Large branches in motion, telephone wires whistle, unbrellas used with Whole trees in motion, inconvenience in walking against wind Breaks twiss off trees, generally impedes progress



Property of: Environmental Solutions & Innovations, Inc. 781 Neeb Road. Cincinnati, OH 45233 (Phone: 513-451-1777)

Comments

% Cloud Cover (estimated)

(estimated - see chart)*

Wind Speed

Temp (°C)

WEATHER DATA Wind Direction: From to

100 8

9 -

3

1 P

M

100 181

77

136

88

First quarter
Waning gibbous

Waning crescent Full moon

Waxing gibbous Last quarter

New moon

MOON PHASE* Waxing crescent

	The state of the s
	10
Project Name: Kopywar - M	-aring
State: OH County: Seneral	000
C. B.	
Diologists:	appresson
Site name/#: +	,
8678	Comoro #.
	Callicia #.

Net/Trap/Anabat #	Net/Trap Type1			Lati	Latitude				Longi	tude		Length (m)	Height (m)	Time Up	Time Up Time Down	Picture #
X	OO	14	0	M	19,	N _m Z	83	2 0		M	>	0	0	202	24/0	
3	22	5	1 0	N	19	N. C	83	0		35.6 "	>	0	0	2035	0/50	
J	22	7	0	2	19.5	N. f	80	7 .	,	29.2 "	>	0	0	2046	13/55	3033
et Placement/	Net Placement/Site Description:	70	200	2	20.5	10	83	0	14	21.4	0000	9	29	Shore	OBED	

# 2	# #	Species	Time	(Ad/Jv)	(M/F)	Kepro. 2) (b)	(mm)	(F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	130	Mystic supplementalities	2230	5	IT	NR	2.5	24	1	0	
	2	todosucis fascus	2236	And	17	10	30.6	50	4	0	
	2	Wystrs Localments	23.00	10	EL	NX	15.1	20)	0	
-	A	19 contration 165	2330	1	la	NR	20	20	M	9	
	O	to Presins	2336	MA	14	74	19.4	200	H	0	
	0	E. 635.45	2334	Ad	100	1	15,6	53	ly	0	
	00	M. Septembershalls	0000	Ad	11		7.8	20	M	0	
-	A	E Riscors	0000	124	hel	7	13.0	43	D	0	
	20	E. Assess	2000	1	11	MK	14.7	toto	Z	0	
	50	E. Asses	0200	49	1	700	21.3	47	N	0	

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat * Refer to table on the back



Project #:

BAT CAPTURE DATA (continued)

Date:

Capt Net	Species	Time Age	Age	Sex	Repro. ²	W	RFA	Belly	Wing Index*	Comments
	T (Sections	2000	(Adiov)	(MIL)	10	300		(F/M/E)	(0-3)	Picture # /Guano/Hair Sample
1	1		AN	- 11	1/4		8		5 5	2059-3059
B	00	SESE	70	2	NR	14.0	100	-	2 2	
H	Wir French	SEC SEC	13	14	18	200	200	is.		
2	M. septentronolisises	0000	KH	12	-	0.0	200	7	0	
1		0000	100	4	74	28.1	117	4		
8	t Shalles	2030	30	7	dev	7.0	P. C.	1	5	
2	Pornally Sough eves	3000	20	H	136	91%	175	11	0	2905 - took
9	E. Charas	3045	75	4	24	1001	5	Ħ	5	
		-								

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Wind Speed (mph)	Description	Visible Condition
0	Calm	Smoke rises vertically
1-3	Light Air	Direction of wind shown by smoke but not by wind vanes
4-7	Light Breeze	Wind felt on face; leaves rustle; ordinary wind vane moved by wind
8-12	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag
13-18	Moderate Breeze	Raises dust and loose paper, small branches are moved
19-24	Fresh Breeze	Small trees in leaf begin to sway; crested wavelets on inland water
25-31	Strong Breeze	Large branches in motion; telephone wires whistle; umbrellas used with difficulty
32-38	Moderate Gale	Whole trees in motion; inconvenience in walking against wind
39-46	Fresh Gale	Breaks twids off trees: generally impedes progress

2010 Lunar Phases

New	First Quarter	교호	Last Quarter
Feb 13	Mar 23		Apr 6
Mar 15	Apr 21		May 5
Apr 14	May 20		Jun 4
May 13	Jun 18		Jul 4
Jun 12	Jul 18	Jul 25	Aug 2
Jul 11	Aug 16		Sep 1
Aug 9	Sep 15		Sept 30
Sep 8	Oct 14	ı	Oct 30
Oct 7	Nov 13		Nov 28

Wing Index Key

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarring is visible without translumination. Membrane exhibits some necroite tissue and possibly few small holes (<0,5 cm diameter). Forearm skin may be falking and discolored along the majority of the forearm.
	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or



NET SITE HABITAT DESCRIPTION

Project #: 340-01 Date: 29-Jul-11	Biologists: Basigel
Project Name: Republic	Site Name/#:8
State: OH County: Seneca	USGS Quad: Watson
Camera #: \(\lambda \la	
ESTIMATED WATER SOURCE CHARACTERISTICS	(IF UNDER NETS): /V/A
Bank Height:meters Channel Width:	meters Stream Width:meters
Substratum:BedrockBoulderCobble	GravelSandSilt/Clay
Still Water Present (Y/N): Average Water D	epth:m or cm Clarity (H,M,L):
VEGETATION:	
Acer rubrum Ea	dominant Canopy Species (< 40 cm/16" dbh) Ler rubrum gus grandifolia
Quercus palustris Co	rya avata
Estimated dbh range: Lg: Sm: Est	imated dbh range: Lg: Sm:
Relative abundance of dominant vs. subdominant (rate	tio): <u>1-50</u>
Estimated canopy closure:Closed	ModerateOpen
Roost tree potential consists of:Large Tree	esSnagsBoth Neither
Roost tree potential for the area is:High Roost potential comments: Large trees ove to	ModerateLow
Subcanopy clutter:Closed	/ModerateOpen
Subcanopy comprised largely of: Canopy Tr	nches ofSaplingsShrubs
Common Subcanopy Species:	
Habitat Description: Mowed yard, sloped to	rest down to pond and stream
Check all that apply: Mature Upland ForestYoung Upland ForestMature Lowland ForestYoung Lowland ForestYoung Lowland Forest	Crop/Pasture LandShrub/scrub SwampStream/RiverVernal PoolEmergent WetlandDeepwater Lake/PondForested SwampOther
Herbaceous Cover: SparseModerate	Dense





Date: 29-July - 11 Project #: 340,01

County: Seneco Project Name: Republic State: OH

Biologists: J. Besige!

GPS Unit #: 46 56 70 Site name/#: 8

Camera #: Can 6

MOON PHASE*

Waxing gibbous Last quarter New moon

Waning crescent Waxing crescent Full moon

Waning gibbous First quarter

	M	WEATHER DATA		
Temp (°C)	Wind Speed (estimated – see chart)*	Wind Direction: From to	% Cloud Cover (estimated)	Comments
24.6	\	1	0	
1.7	1	1	0	
3,7	1	(0	
2.4		1	0	
232	1	1	٥	
2330 229	1	\	0	
500 22,5		1	0	
22.1	١	1	0	
22.2	1	1	0	
1.9)	\	0	
21.9	١	\	0	
1				

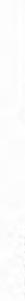
Net/Trap/Anabat	Net/Trap Type1	Latitude	Longitude	Length Height (m)	Time Up (0000 h)	Time Down (0000 h)	Picture #
V	N		W. 955. 0 . 58		2035	0200	586
8	N	41. 13 . 43.8 "N			2040	0205	826
V	N		1	1	2095	0170	986
Not Discoment	Mot Discompat/Site Description	110 13, 46.811	830 0' 52,7"	9 71	2050	5120	685

Net Placement/Site Description:

Capt #	Net #	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. 2	¥ (ē)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	9	Myotas sectentrionalis	2205	Ad		70	225	35	M	0	0
	d	Entesions fuscus	2215	Ad	×.	>	17.5	36	A	0	954-955
1	8	USCUS	05 27	7	u	NA	17,25	3%	T	0	
	8	E.fuseus	2250	Ad	<	>	17.5	43	M	0	
	Q	Lasiwik borealis	0200	Ad	F	72	16.50	16	Z	0	1967 - 467

M = Monofilament, ON = Old Nylon, NN = New Nylon. HT = Harp Trap; A = Anabat ** Refer to table on the back

Reproductive Condition: Female = NR/PG/L/PL, Male = 11↓



WEATHER DATA

Comments



	1
2	2
L	220
F	
V	アダア
+	DA
מ	0

Droinet #.	CL	Date:	11-11-11		Time (0000 h)	Temp (°C)	Wind Speed (estimated – see chart)*	d chart)*	Wind Direction: From to		% Cloud Cover (estimated)
Light #.	11 . 12		-	1	81.00	272	((0	0
Project Name:	Project Name: Newwork				08/8	26.8	1)		0
State.	County.	· Spinera			0	25.2	1		١		0
	The same				13	1 182	4-7				0
Biologists:	Biologists: 5.66.865	MARCINE	4	Ĭ	2300	0.00	67		1	3	
Site name/#:	8				25.70	622.9	\ \ \				
,	011/10		1	14	0.000	13.3					5
GPS Unit #: 7056/0	165410		Camera #: Canb /	11	2630	2190	1				
					010	23,6			1		
	M	MOON PHASE*			0130	23,4	1		1		
New moon		Waxing crescent		-	020	23.1	١		1		
Waxing gibbous Last quarter		Full moon Waning crescent	Waning gibbous	snoq			A Table of the section of the sectio		e de l'année de la company de l'année de l'a		
let/Trap/Anabat	Vet/Trap/Anabat Net/Trap Type¹		Latitude		Longitude		Length F	Height (m)	Time Up Time Down (0000 h)	(0000 h)	
A	N	41.13	N. 7.77 "N	83°	0.53	M. S	9	9	2030	05/0	185
Q	N	51.15	N. 8. 5/7. 8	· >>	0 . 57	W. 8	9	0	2035	5540	886
	N	41.13	N. 17/10. 2	2	52,0	M. Z.	2	6	2040	2200	986
Q	No.	11/13	8 74	83	0 52,	1	12 6	1	20%5	502	186

Picture #

838

Net Placement/Site Description:

Capt #	# Set	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. 2	¥ (6)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
1	U	Myothe septentilenalis	2130	70	7	NA	5.75	30	X	0	
-/	Q	Software August	1880								116-1 - 12 - 12 - 12 - 12 - 12 - 12 - 12
	U	Martin Com	3400	6	U	NR	7,2	1	T	0	113-09-11-0999
-	8	Perimunto Suit and	WS CA	20	5	4	70	34	10	0	113-0989 3990
1	2	V 5 V 5 V 5 V 5 V 5 V 5 V 5 V 5 V 5 V 5		7	100	4	1/8/1	2/2	M	6	
	0	Martin Scarle it is all I	0/55	30	L	NR	2	47	1.5	0	
								1			And the state of t
					-	300		and the same of the		and the first of t	10 min 10

¹ M = Monofilament, ON = Old Nyton, NN = New Nyton, HT = Harp Trap, A = Anabat * Refer to table on the back

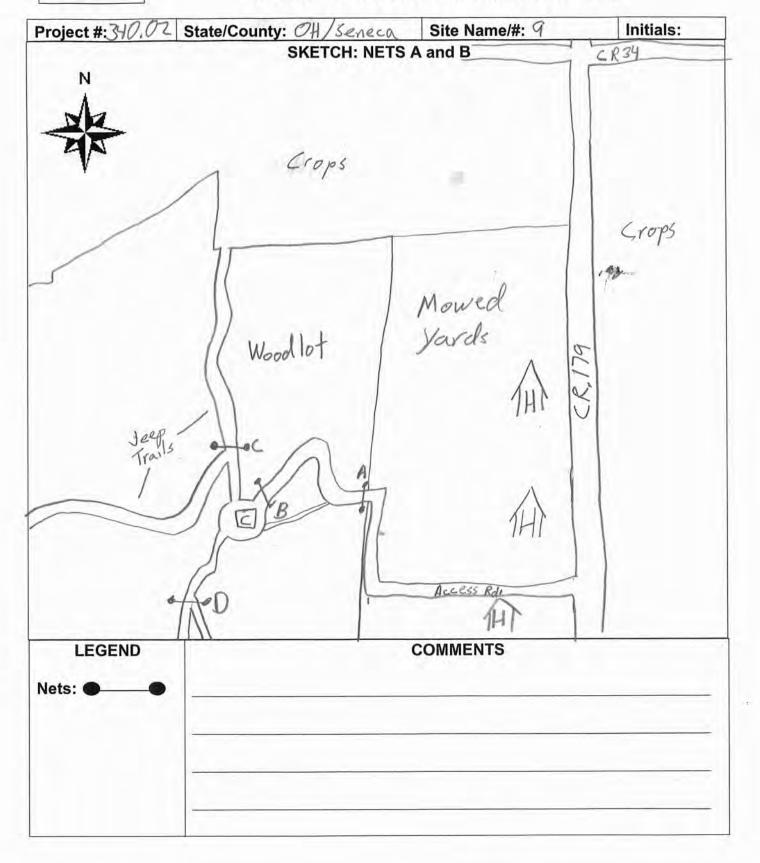


NET SITE HABITAT DESCRIPTION

Project #: 340.02 Date: 17 July 2011	Biologists: Verreck Skaves
Project Name: Tetrotech Republic	Site Name/#: Site 9
State: OH County: Sene ca	USGS Quad: Fireside
Camera #: Picture #s: 874-877 Latitude: 4/ ° /4 ' O TO "N Distance to closest water source (meters): 150 Water source name:	GPS Unit #: 1846 Waypoint #: Longitude: 12 ° 59 '49 5 "W Type of water source: <reek< th=""></reek<>
ESTIMATED WATER SOURCE CHARACTERISTICS	(IF UNDER NETS):
Bank Height: N/A meters Channel Width: N/A	meters
Substratum: NABedrock Boulder Cobble	GravelSandSilt/Clay
Still Water Present (Y/N): Average Water De	pth: Man or cm Clarity (H,M,L): MA
VEGETATION:	
	dominant Canopy Species (< 40 cm/16" dbh)
Acer rubrum A	eer rubrum
Carya ovata	
Estimated dbh range: Lg: 55 Sm: 90 Estir	nated dbh range: Lg: 39 Sm: 10
Relative abundance of dominant vs. subdominant (ratio	o):_/:50
Estimated canopy closure:Closed	ModerateOpen
Roost tree potential consists of:	sSnagsBoth Neither
Roost tree potential for the area is:High	ModerateLow
Roost potential comments: Large Carya ovata	
Subcanopy clutter:Closed	ModerateOpen
Subcanopy comprised largely of: Lower Bran Canopy Tree	
Common Subcanopy Species:	
Habitat Description: Mature meson woodst	
Check all that apply: Mature Upland ForestYoung Upland ForestMature Lowland ForestYoung Lowland Forest	Crop/Pasture LandShrub/scrub SwampStream/RiverVernal PoolDeepwater Lake/PondOther//



NET SITE HABITAT DESCRIPTION (continued)



ESI

BAT CAPTURE DATA

Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

WEATHER DATA

Comments

Cover (estimated)

(estimated - see chart)* Wind Speed

Temp (°C)

(xxxx h) Time

3000

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18 20

Sitio Camera #: 06209 County: Sevela Shows Site name/#: Date: Robelle Project Name: Tetratich GPS Unit #: 67406 Project #: 340.02 Biologists: \ Barack State:

Net B 41. 14. 08. "N 82. 59. 49,5 "W 6 6 2100 0200 874 09A Net B 41. 14. 68 "N 82. 59. 53,5 "W 6 6 2055 0155 875 09B Net B 41. 14. 09. "N 82. 59. 54.2 "W 6 6 2050 0156 876 09C	Net/Trap/ or AnaBat	Net/Trap/ AnaBat Serial #	Latitude	Longitude	Length (m)	Height (m)	Time Up (xxxx h)	Time Down (xxxx h)	Picture #	Waypoint #
59: 53,5"W 9 9 2055 NISS 875 59: 54,2"W 6 6 2050 0/95 876 59: 55,2"W 9 6 70 2045 0/45 877	Net	4	N. *80 . - . 17	0	٠	9	2100	0200		APO
59 54,2 "W G G 2050 0150 876 59 55 3"W 9 (6 2015 0145 877	カス	73	N. 25 . 11 . 17		0	5	2055	7155		0918
-0) 10 M2 SS 10G	なって	K	N. 6.80 . 51 . 15		0	0	2050	0/5/0		000
	137		N. LO . M		0	(0)	2045	0/45	LL8	097

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Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	¥ (6)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
Derimontis siditionus	2125	Po	2.	4	200	32	H		女フ
MUSTIC SOCIAL CIONALS	2125	37	I	フ	5	33	1	C	0217
primydis Suldiavus	2125	40	5	<	0.5	32	L)	0	0216
M. Sententrionalis	2128	4	T	7	(0,0)	36		0	Deites on wing at
Interious Tuscus	2136	4	5	>	17.1	45	2	C	0218
T Fascus	2150	1	H	7	15.2	444	W		N/A
A Signer	2128	R	1	2	\display	40	I	N	mend han an spots
t. Lusais	2150	Aol	I	187	173	45	2	0	\$2
T. C.	2.0	ACI	2	1/2/	177	UC	11	C	W/12

Reproductive Condition: Female = NR.PG/L/PL; Male = ↑↓ * Refer to table on the back

Page 1 of Z



BAT CAPTURE DATA (continued)

	340,02	25	Date:	17	Joseph	201					
Project Name:	19	Intech Republic	Site Name/#:	ame/#:	5	187			Ē		5/2
Net #		Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	ğ X	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
++	- N + 05	as fuscus	2200	3	7	4	18.2	45	7	0	***
4	+	- Ausars	2210	P	П		0,81	45	7	0	Small Har on left wing
-	H	Poses	22/0	4	1	74	24.9	78	П		Scarring and spers
1		I. Answ s	2220	P	IT	70	8.0	45	H		Maled stars
+		F. Lusans	2220	POH	4	7	19.0	17/1	I		Manak 0.720 -0.221
		to fusions	2220	Fel	4	70	17.7	47	4	0	few spers
-	-	Darionotic suttlavus	2220	3	Ш	20	_ is	32	(II)	0	女 フ
-	7	F. Luscus	2230	As	2	20	16.0	416	T	0	N/4
		T. Alisans	233	?	2	~	15:51	45	2	0	アノオ
f -		The faces	2330	N. A.	L	1	19.6	46	П	0	Z = 2
1_		Tien.	2280 -								Franco Not
1	2	ALie contrale and	2330	M	IL	10	6.8	10	U	C	NA NA
		The Fired of the Parket	2330	AS	u	7	18.1	9/7	IL	0	∀ /2
,)	F. Fisons	2355	K	11	72	8	410	T	7	Scorring a sports
-		the fishes	2335	A	2	12.5	15.6	777	丌	0	N/A
		F fusac	2340	3	11	4	7.9	45	Ц	C	4/2
		N STITEM-COMO IS	0000	3	1)	ZZ	7.0	37	Z	0	N/A
		E. fusais	0/00	Ka	11	7	20.2	47	H	-	solve notice on somes
	1	M. Septembrials	848	Ad	11	2	10,7	8	W		Spalme a party J
Des	Description	Visible Condition							Score	+++	Description No damage. Fewer than 5 small scar spots are present on the membranes is the damage of the state of the first membrane is denominated featuration.
Calm Light Air	1 :	Smoke rises vertically Direction of wind shown by smoke but not by wind vanes	nd vanes							which is often vis Moderate damag	Light daniage. Less that 90 or inguit retinuorate is oppurative upproximity. Light daniage. Since visible only with transformation. Moderate damage. Greater than 50% of wing membrane covered with scar tissue
Light Breeze Gentle Breeze	eze reeze	Wind felt on face, leaves rushe, ordinary wind vane moved by wind Leaves and small langs in constant motion, wind extends light flag	ne moved by wind extends light flag		rest stee					(splotching). Sca necrobic tissue ar he flaking and dis	(splotching). Scarring is visible without translumination. Membrane exhibits some necroic tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may he fisking and discolored along the majority of the forearm.
Moderate Breez Fresh Breeze Strong Breeze Moderate Gale	Moderate Breeze Fresh Breeze Strong Breeze Moderate Gale	Raises dust and bose pager, smail diatories are inover. Small frees in heaf begin to sway: crested wavelets on inland water. Large branches in motion, telephone wires whistle, umbrellas used with Whole trees in motion, inconvenience in walking against wind.	ets on inland water the, umbrellas used against wind	with difficulty					3	Heavy damage. Deteriora >0.5 cm are present in me chiropatagium are evident	Heavy damage. Deteriorated wing membrane and necrobic tissue. Isolated holes >0.5 cm are present in membranes. Necrobic or receding plagnopalagium and/or chiropalagium are evident.
Fresh Gale	ale	Breaks twigs off trees, generally impedes progress	SSS								Page 2 of Z
		F Guscus	0200	Ad	7	\rightarrow	200	47	U	0	4
		F Fuscus	0000	Ad	11	٦	17.8	75	Ш	0	1/4



Camera #: Ca v 67 Date: 20 Tul 2011 SINDER REDUCION GPS Unit #: 451 465 670 County: B08164 Project #: 346,6) 0 かり Project Name: Site name/#: Biologists: State:

MOON PHASE*

Waxing gibbous Last quarter New moon

|--|

Comments												
% Cloud Cover (estimated)	(0%	(6%	164	10%	16970	30%	36%	50%	200%	Soul.		
Wind Direction: From to	١	Ì	\	\	(\		Y	1			
Wind Speed (estimated – see chart)*	0	0	0		C	50	0	27	1-2	10		
Temp (°C)	21.5	27.3	27.0	27.2	27.3	27.3	27.4	27.6	27.3	508		
Time (0000 h)	2/60	2330	2200	3330	3300	2230	CODOLA	0030	0010	013/5		

Net/Trap	/Anabat	Net/Trap/Anabat Net/Trap Type¹		-atitude		Longitude	epn:	Lei	Length (m)	Height (m)	Time Up (0000 h)	Height Time Up Time Down (m) (0000 h)		Picture #
A		net	. 101 . 110	N. 9 89	88	. 55 . 8	W" 5 9/2			9	3400		hL8	1 WPT 09A
B		37	110017	N. 0. 80	800	50	82° 59 ' 53,5"W	U	6	0	2400		875	200 1
(5)	20	in mer	0 2	N. 6 50	00	50	W. 4 4 2 " PS		9	9	Surg		× 76	1 090
Net Pla	cement	Net Placement/Site Description:	410 14.	Sc 70 "	068 1011	1561	(81,154,21,18)	12	ar ar	SC CM	Scross truil	Sin wood	W873	090
tuco	Mot				Ano	Sov	Sov Bonro 2 Wt	W+	DEA	Relly	REA Relly Wing Index*	***	Com	Comments

capt #	# #	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. 2	Wt (9)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	8	Lasiums boreals	2116	13	Σ	4	\	27	w	0	
N	A	Eptesions fuscus	2120	A.S.	W	>	15,254	56	M	0	
W	A	L. borealis	2125	Hol	M	1	9.75	37	M	0	
X	<	Mustis scotontionalis	2/30	10	M	K	0.9	36	N	0	
5	0	M. septentilanolis	2130	du	V	Se	53	34	M	0	
6	0	E Fussins	2145	20	4	MY	13.5	45	M	0	Frey, 172,239
N	R	I GOLINS	2200	Ad	Σ	+	15,75	40	Σ	0	7
20	0	1 Ausmis	2210	Ad	N	70	21,75	85	N	0	
6	0	Etuseus	2210	do	M	4	13	93	W	0	
0	0	Erfuscus	2210	10	4	78	18,5	43	C	0	

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat * Refer to table on the back



Project #:

BAT CAPTURE DATA (continued)

Date:

Picture # /Guano/Hair Sample Comments ALLED From Wing Index* (0-3) Initials: 0 0 0 Belly (F/M/E) 2 5 4 2 1 121 RFA (mm) 200 26 15 94 1875 7.25 18.5 0 0 16.0 76 5:5 ¥ 6 00 M Repro.² F F K 10 Sex (M/F) 3 3 L 2 Age (Ad/Jv) Site Name/#: D 22,20 22,22 22,40 27:50 22:50 22:20 22.50 22:20 2210 2210 220 Time Myotis Septentribus Perimuch's subflayes Species FLYCLES this cas FLASCIA E. Fuscus +2,5645 tuscus Eituscus SASSERS E, fuscus wi Mi Project Name: Net # Š X V 8 25 Capt 35 J

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4	1	4

Wind Speed (mph)	Description	Visible Condition
0	Calm	Smoke rises vertically
1-3	Light Air	Direction of wind shown by smoke but not by wind vanes
4-7	Light Breeze	Wind felt on face; leaves rustle; ordinary wind vane moved by wind
8-12	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag
13-18	Moderate Breeze	Raises dust and loose paper, small branches are moved
19-24	Fresh Breeze	Small trees in leaf begin to sway; crested wavelets on inland water
25-31	Strong Breeze	Large branches in motion; telephone wires whistle; umbrellas used with difficulty
32-38	Moderate Gale	Whole trees in motion; inconvenience in walking against wind
39-46	Fresh Gale	Breaks twips off trees: generally impedes progress

2010 Lunar Phases

New	First Quarter	Full	Last
Feb 13	Mar 23	Mar 29	Apr 6
Mar 15	Apr 21	Apr 28	May 5
Apr 14	May 20	May 27	Jun 4
May 13	Jun 18	Jun 26	Jul 4
Jun 12	Jul 18	Jul 25	Aug 2
Jul 11	Aug 16	Aug 24	Sep 1
Aug 9	Sep 15	Sep 23	Sept 30
Sep 8	Oct 14	Oct 22	Oct 30
Oct 7	Nov 13	Nov 21	Nov 28

Wing Index Key

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarring is visible without translumination. Membrane exhibits some necroitc tissue and possibly few small holes (<0,5 cm diameter). Forearm skin may
2	be flaking and discolored along the majority of the forearm.
	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plaglopalagium andior relicional animal are avident.



NET SITE HABITAT DESCRIPTION

Project #: 340 Date:	: 7/19/11 Biolog	gists: A. Kul	ouslei,	M. for
	Site N	ame/#: 10		
Project Name:	usgs	Quad: Fire	side	
State: OH County: Sculle Net/Trap/ Net/Trap/ Latif		ongitude	Picture #	Waypoint #
or AnaBat AnaBat Serial #		, 41.8 "W	069	10 à
A Net 41.13	41.8 "N 82°59 48.0 "N 82°59	1100	870	106
B NOT 11	485 "N 82° 59		8,71	106
D Net 41 . 13	400 "N 87. 59	· 46.0 "W	872	101
Distance to closest water source (meter	s): Ø Typ	pe of water sour	ce: 54	really
Water source name:				
ECTIMATED WATER SOURCE CHAR	ACTERISTICS (IF UNDER	NETS):		
Pank Height: 7 meters Chann	nel Width: 6meters	Stream Width:	_ <u>4</u> _met	ers
Substratum:BedrockBoulder	// Cobble Gravel	SandS	Silt/Clay	
Still Water Present (Y/N): Ave	orage Water Depth: 1/2 m	or cm Clarity	(H,M,L):_/	4
	stage water beput			
VEGETATION:	2" dbb) Subdomina	nt Canopy Spec	ies (< 40 d	m/16" dbh
Dominant Canopy Species (> 40 cm/16		s rubre		
K .				
Juglans nigra				
Relative abundance of dominant vs. su Estimated canopy closure: Roost tree potential consists of: Roost tree potential for the area is:	/_Closed /_Large Trees High	Modera Snags Modera	_	_Open _ Neither _Low
Roost potential comments: Tight	Closed	√Moder	ate	Open
Subcanopy clutter:				Shrubs
Subcanopy comprised largely of:	Lower Branches of Canopy Trees		95 _	_=(.,,=,=,=
Common Subcanopy Species:	Ulmus tubro	-		
Habitat Description:	Siciali Olilo Sti	pary / low la	A for	est sti
AnaBat Habitat: ////				
Check all that apply:	the Logged Forget Cre	p/Pasture Land		Other
Mature Upland ForestRecen Young Upland ForestForest	Edge \subseteq Str	eam/River		
Mature Lowland Forest Woodl	lotVei	rnal Pool		
Young Lowland ForestOld Fig		epwater Lake/P	ond _	
Herbaceous Cover: Sparse	ModerateD	ense		
Revised April 2011	1			



Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

NET SITE HABITAT DESCRIPTION (continued)

Project #:340,01	State/County: OH/ Seneca	Site Name/#: 0	Initials:
	SKETCH: NE and AnaBat		1
N			
ME	- 2		
AN	16)		0
' /			77
	1 - land Se	lorest age/density	1
	toward c	and down to	
X	Moderate	and done in	
	F 6-1	50	
A		9	4
2 2 2 2	(a) /		10 5
	Logs LGream	D	10,70
Post			2 -0
		XO.	
D		3)	
1	6	· KIN	
-			\ \x
LEGEND		COMMENTS	
Nets:			



177 Camera #: Can Date: 17 July 1 County: Sen 100 Project Name: Republic Biologists: J. Basian 50/46567 Project #: 340.01 Site name/#: State: 0 H GPS Unit #:

MOON PHASE*

Waxing crescent Waning crescent Full moon

Waxing gibbous

New moon

Last quarter

First quarter
Waning gibbous

_		_	_	-	-		_		_	_		_		_
	Comments													
	% Cloud Cover (estimated)	0	0	0	0	02	1/5	0	0	0	0	0		
WEATHER DAIL	Wind Direction: From to	1	1	1	1	1	1	1)	J	1			
144	Wind Speed (estimated – see chart)*	1	1	1	١	1	1	1	1	1	1	1		
	Temp (°C)	26,9	26.5	からか	20.3	36,0	.35.9	25.9	25.7	7.50	25.	876		
	Time (0000 h)	2100		SAM	323	2300	3330	0000	0500	MARD	6130	A200		

Net/Trap/Anabat	Net/Trap Type1		atitude	2	-ongitude	Length (m)	Height (m)	Time Up (0000 h)	Time Down (0000 h)	
Ø	18.54	81.16	N. 876.	82.39	-	8	10	5607	0200	638
8	KIVI	91 . 13	N. 086	82.59		9	6	2050	0205	028
	133	41 . 13	N. 5.85	82.59	.443	8	9	2055	0120	871
Net Placement/Site Descrii	Site Description	11 13	18.9	82 59	46,0	6	9	2100	20215	872

Capt #	Net #	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	(g) Wt	(mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	H	Enterior fuscus	3330	MG	M	7	(8,23	96	H	0	
	U	7	12%0	Ad	H	70	21.5	47	M	0	
0	U	М	9230	R	K	7	(7.25	43	M	0	
0	()	и	dege	Ad	N	10	21.75	94	Y	0	
2	U	Lesiurus Cinpralls	59.50	1	M	>	22,75	35	W	0	DIC# 845, 844.
0	0	Myotis lucitions	320	Ad	M	<		35	W	0	
-	0	D LiverAgains	3330	Ach	I	+	7.5	33	Σ	0	158,028 #210
F	0	E. Anstall	3336	Aci	L	78					
0	C	E DASCAS	9336	Ach	1	70					
5	0	# PASCUS	0880	Acl	1	70					

 1 M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat * Refer to table on the back

0142

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ESI

BAT CAPTURE DATA

Project #: 340
Project Name: Republic
Biologists: A. Kaiowski Site name/#: 10
State: Old State: Old

Camera #: 67

129596

GPS Unit #:

26 1-3 24.3 0			Comments
	cnarry Cover (estimated)		
4.3	20	2	
	07		
3.9	20		
3,5	0		
3.2	a		
0 1 9	02		
0 t.c	0		
0 1.2	0		
2.8	8		
2 6.1	0		

Waypoint #				
Picture #	269	270	168	272
Time Up Time Down (xxxx h)	238	230	215	210
Time Up (xxxx h)	2115	2115	2105	2105
Height (m)		0	19	9
Length (m)	9	9	P	6
Longitude	29	82°59 . 428 "W	0	6
Latitude	N. 87/2 . 81 . /h	N. O. St. 21 . 1/2	N. 585. 81 . 15	N. 6.85. 81 . 15
Net/Trap/ AnaBat Serial #	NC+),	W.	1,6
Net/Trap/ or AnaBat	A	3	Ų	0

Net Placement/Site Description:

Capt #	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	Δ	T. Suh	2/30	20	2	ON ON	66	5	LLI	Ø	
22.7	A	E. Liseus	0112	Ad	9.	2	17,3	17.5	Z	0	
	Δ	E. Eus	2220	Ad.	4	No.	19.2	なる	1	b	
	Ω	D. Sub	2222	Py	4	7	518	36	#	0	
5	V	11. 146	2230	7	m	W	7.9	38	7	1	
	M	F. Als	2230	14	4	20	LA	9/1	M	18	
1	A	E. Fus	2295	AN	4	1	20,2	96	11	2,	
	X	M. Sep	22.45	AN	4	13	0.5	14 10	M	8	
, ,	M	M 550	0282	707	Q	100	2.5	(d)	11	N. A.	

¹ Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓ * Refer to table on the back



BAT CAPTURE DATA (continued)

	Project #:		Date:	1 8	1919	70			2	Histor Al	
010 24 M NR 554 33 M O 015 24 M R 56 33 E O 110 14 F NR 6.2 95 M O 205 AN F L 21,3 47 M O 135 34 M NK 19.4 52 E O		S	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index*	Comments Picture # /Guano/Hair Sample
205 3v m MR 141,6 1/8 E 205 3v F NR 6,2 35 m 205 AM F L 2113 47 m 1350 JV M NK 19,4 52 E	-0.87-		010	3	M	2	2.12	33	M	9	
205 20 F NR 516 33 F 205 AM F L 2113 47 M 1 230 J M NK 19.4 52 E	EL (65		015	30	2	MS	275	70	L	B	
110 Jy F MK 6.2 35 M 205 AM F L 21.3 47 M 230 JV M MK 19.4 52 E	M. 5cp		560	30	T	MR	2.6	10	n.	Ø.	
205 AN F L 21,3 47 W 230 JU M MK 19,4 52 E	Misch		110	10	TT	NK	7.3	5	14	B	
236 W M MK 19.4 52 E	F. 505		205	14	L	7	21.3		M	B	
	L. Linereus	2	230	3	M	XX	19.4	25	ш	9	
			4								

Vind Speed (mph)	Description	Visible Condition
	Calm	Smoke rises vertically
	Light Air	Direction of wind shown by smoke but not by wind vanes
	Light Breeze	Wind felt on face: leaves rustle, ordinary wind vane moved by wind
	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag
	Moderate Breeze	Raises dust and loose paper; small branches are moved
	Fresh Breeze	Small trees in leaf begin to sway, crested wavelets on inland water
	Strong Breeze	Large branches in motion, telephone wires whistle, umbrellas used with difficulty
	Moderate Gale	Whole trees in motion; inconvenience in walking against wind
	Fresh Gale	Breaks twigs off trees: generally impedes progress

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
*	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (sploiching). Scarning is visible without utrastlumination. Membrane exhibits some necroits bissue and possibly few small holes (<0,5 cm diameter). Forearm skin may be fishing and discolored along the majority of the forearm.
m	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes 0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

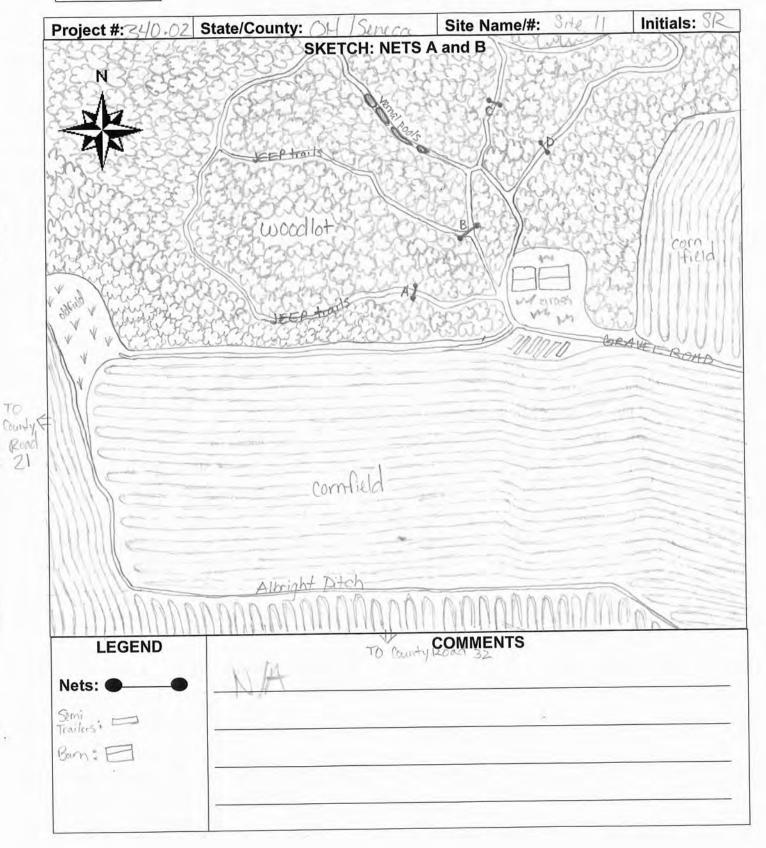


NET SITE HABITAT DESCRIPTION

Project #: 340.02 Date: ZI July 2011 Biologists: D Jeffeott, SReeves
Project Name: Tetratich Aepublic Site Name/#: Site 11
State: Oh County: Sewera USGS Quad: Firesido
Camera #: CHSA Picture #s: 100-101 House GPS Unit #: CSA Waypoint #: 028 Latitude: 41 ° 13 '3.7 "N Longitude: RZ ° 58 '5.4 "W Distance to closest water source (meters): 500 m Type of water source: Stream Water source name: Albright Ditch
ESTIMATED WATER SOURCE CHARACTERISTICS (IF UNDER NETS):
Bank Height: Name meters Channel Width: Manual meters Stream Width: Manual meters
Substratum: NABedrockBoulderCobbleGravelSandSilt/Clay
Still Water Present (Y/N): Average Water Depth: m or cm Clarity (H,M,L):
VEGETATION:
Dominant Canopy Species (> 40 cm/16" dbh) Acer Sacharum Subdominant Canopy Species (< 40 cm/16" dbh) Acer Sacharum
12 mos americana Ulmus americana
Pruhus serotina, Juglans nigra
Estimated dbh range: Lg: 100 Sm: 40 Estimated dbh range: Lg: 39 Sm: 5
Relative abundance of dominant vs. subdominant (ratio):
Estimated canopy closure:ClosedOpen
Roost tree potential consists of:Large TreesSnagsBoth Neither
Roost tree potential for the area is:HighModerateLow
Roost potential comments: snags mostly under the panely
Subcanopy clutter:ClosedOpen
Subcanopy comprised largely of:Lower Branches ofSaplingsShrubs Canopy Trees
Common Subcanopy Species: Acer sacharon
Habitat Description: mestic pature woodlot near cornfields and barn structure
Check all that apply: Recently Logged Forest Crop/Pasture Land Shrub/scrub Swamp Young Upland Forest Pine Plantation Stream/River Vernal Pool Mature Lowland Forest Woodlot/ForestEdge Emergent Wetland Deepwater Lake/Pond Young Lowland Forest Old Field Forested Swamp Other Young Lowland Forest Sparse Moderate Young



NET SITE HABITAT DESCRIPTION (continued)



Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)
WEATHER DATA

ESI

BAT CAPTURE DATA

Project #: 340.02 Date: 21 July 20/1
Project Name: Tetrades Republic
Biologists: D Jufford, Spring Site name/#: Site (1)

Acott, Sheves Site name/#: Site 11
County: Senera
LOSULA
Camera #: CH834

State: ON G

6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Time (xxxx h)	c) (°C)	Wind Speed (estimated – see chart)*	% Cloud Cover (estimated)	Comments
29.7 29.6 22.8 22.8 27.8 27.8 27.8 27.8 27.8 27.8	2100	29.6	C	200C	
29.6 22.3 27.6 27.8 27.8 27.8 27.8 27.8 27.8 27.8 27.8	2130	29.7	C	0/2/0	
29,3 27.6 27.8 27.8 27.8 27.8 27.9 28.9 26.6	2200	29.60	0	0%	
27.6 27.8 27.8 27.3 28.9 26.6	2230	29.3	0	89	
27.6 27.8 27.8 27.3 27.3 26.9 26.6	2300	28.10	0	0%	
27.8 27.6 27.3 28.9 28.6 0	2330	27.6	1-0	0%	
27.6 27.3 26.9 26.0 0	0000	27.8	C	0%0	
26.6	0030	27.6	0	0%0	
-0	0010	27.3	0	%0	
0200 26.60 0 0%,	0/30	26.9	0	%0	
	0200	26.6	0	0%	
	,				

Waypoint #	028	030	029	027	
Picture #	301-101	107	501	200	
Time Up Time Down (xxxx h)	0510.	55/0	0200	0205	
Time Up (xxxx h)	2050	2055	2100	2105	
Height (m)	6.2	0,2	6.2	6,2	1
Length (m)	9	6	0)	(0)	1
Longitude	82 · 58 · 54 "W	82 . 58 . 2.6 "W	82 ° 58 ° 2.4 "W	W" 8.0 . 82 . 58	1-11
Latitude	11 . 13 . 3,7 "N	N. 8.4.8 %	V. 13 . 7.0 "N	VI 8.5.8 "N	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Net/Trap/ AnaBat Serial #	7	20	U	P	
Net/Trap/ or AnaBat	Took	+97	+7/N	ナプスト	

Net Placement/Site Description:

Capt N	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	8	Fratsicus fishis	2140	Ad		+	14,7	K	I	0	3708
N	00	SIJUST J	2140	A	2		3.011	94	I	0	*>
8	8	F. fusaus:	2146								Facousal Nat
7	0	Very a partition	12F								FSCORED LINA/PS
10		El-Ausona	21155	PY	1	4	7	9/7	2	0	15
	0	T. A. 9245	2225	CH	4		120	157	2	0	12
1	4	E. Disais	2300	T	4	7	8:0	47	2	C	K/Z
	0	E. fusus	000	A	11	Z	197	717	2	0	**
0	1		6000	100	1-	Six	1		1.1	(-1

1 Reproductive Condition: Female = NR/PG/L/PL; Male = ↑↓ * Refer to table on the back

Page 1 of Z



BAT CAPTURE DATA (continued)

ject	#	Project #: 340,02	Date:		24 July 2011	1102			14 2011		
ject	Name	Project Name: Tetratech Republic	Site	Site Name/#:	T	117			İ	tials: D. S	d
apt #	# Wet	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	ly Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
0	0	Estesions-fusons	0/50	Ad	1	4	17.3	75	2	0	1
		E AUSCU S	0970	No.	1 -		1.00	3	<u>)</u>		▼
Wind Speed									Score		Description

Visible Condition	Smoke rises vertically	Direction of wind shown by smoke but not by wind vanes	Wind felt on face; leaves rustle; ordinary wind vane moved by wind	Leaves and small twigs in constant motion; wind extends light flag	Raises dust and loose paper, small branches are moved	Small trees in leaf begin to sway, crested wavelets on inland water	Large branches in motion; telephone wires whistle; umbrellas used with difficulty	Whole trees in motion, inconvenience in walking against wind	Breaks twigs off trees; generally impedes progress
Description	Calm	Light Air	Light Breeze	Gentle Breeze	Moderate Breeze	Fresh Breeze	Strong Breeze	Moderate Gale	Fresh Gale
Wind Speed (mph)	0	1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
7	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarring is visible without translumination. Membrane exhibits some necrotic tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
m	Heavy damage. Deteriorated wing membrane and necrotic tissue, Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

Comments

Cover (estimated)

(estimated - see chart)*

23,7

Temp (°C)

(xxxx h) 2100 2130

% Cloud

WEATHER DATA

20%

2000 0 0 O 0 0

20.00

2200 2230

33

23,4

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d 200

2300 2330 C 0

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0 0

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0513

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ESI

BAT CAPTURE DATA

Date: 25 July 2011 enec Site name/#: Camera #: County: Project Name: Tetradech 7 Biologists: D Settice# 340.02 00 せつ GPS Unit #: Project #: State:

Net/Trap/ AnaBat Serial #	Latitude	Longitude	Length (m)	Height (m)	Time Up (xxxx h)	Time Up Time Down (xxxx h)	Picture #	Waypoint #
AnaBat Serial #	Latitude	Longitude Co.	(E)		(xxxx h)	(xxxx h)	Picture #	waypoint

029 027

030

0 000 9

0215

2045 200

0.6

> > >...

2.6 2.4

300

Z

4.3 0

10 (e

0 0 0

15

NE 1/2

Net/Trap/ or AnaBat

16 1/7

00

0 0

> Z Z

> > 1

10 0

58

0 87 8 83

7.0

0

2100

0240 0350

d

0 wood through roads placed Nets Net Placement/Site Description:

Capt #	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	C	Enterious Puscus	2145	>	X	4	15.6	45.0	X	0	
d	C	E. Fuscus	2145	AA	٤	4	15.1	45.0	X	0	
0	1	E. Puscus	2200	1			15.3	1	E	0	25caped
7	8	E. Puscus	2215	5	1	NR	14.7	45.0	M	0	
S	0	E. Duscus	2230	3.	F	NR	19.5	44.0	×	0	
_0	4	E. [USCUS	7235	AA	11	72	17.0	43.0	<	0	
	23	M. sestentrionalis	2300	7	11	NR	1.0	35.0	{	0	
8	0		0000	10	>	NR	1	46.59	2	٥	
0	00	F. Puscus	0030	P. T.	11	78	19.4	-0	{	Q	

1 Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓ * Refer to table on the back

Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

Comments



340.02

Project Name:

Project #:

BAT CAPTURE DATA (continued) Date: 25 July 201

Picture # /Guano/Hair Sample Wing Index* (0-3) 0 0 0 Initials: Belly (F/M/E) 74.0 46.0 45.0 RFA (mm) 0.0 1.7 ¥ (6 Repro.² 4 6 Sex (M/F) Age (Ad/Jv) Site Name/#: 5 0030 0030 0000 Time Tetratech /Republic Eptesious Ausous Species fuscus Fuscus 5 Capt 0 #

(splotching). Scarring is visible without translumination. Membrane exhibits some necroitc issue and possibly few small holes (<0.5 cm diameter). Forearm skin may Moderate damage. Greater than 50% of wing membrane covered with scar tissue Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination. No damage. Fewer than 5 small scar spots are present on the membranes be flaking and discolored along the majority of the forearm. Score 0

Page 2 of

>0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or

chiropatagium are evident

Small frees in leaf begin to sway: crested wavelets on inland water Large branches in motion; telephone wires whistle, unbrellas used with difficulty. Whole trees in motion, inconvenience in walking against wind Breaks twigs off trees; generally impedes progress

Light Breeze Gentle Breeze Moderate Breeze Fresh Breeze Strong Breeze Moderate Gale Fresh Gale

0 1-3 4-7 8-12 13-18 19-24 25-31 32-38 32-38

Direction of wind shown by smoke but not by wind vanes Wind felt on face: leaves rustle; ordinary wind vane moved by wind Leaves and small twigs in constant motion; wind extends light flag. Raises dust and loose paper; small branches are moved

Visible Condition

Description

Wind Speed (mph)

Light Air

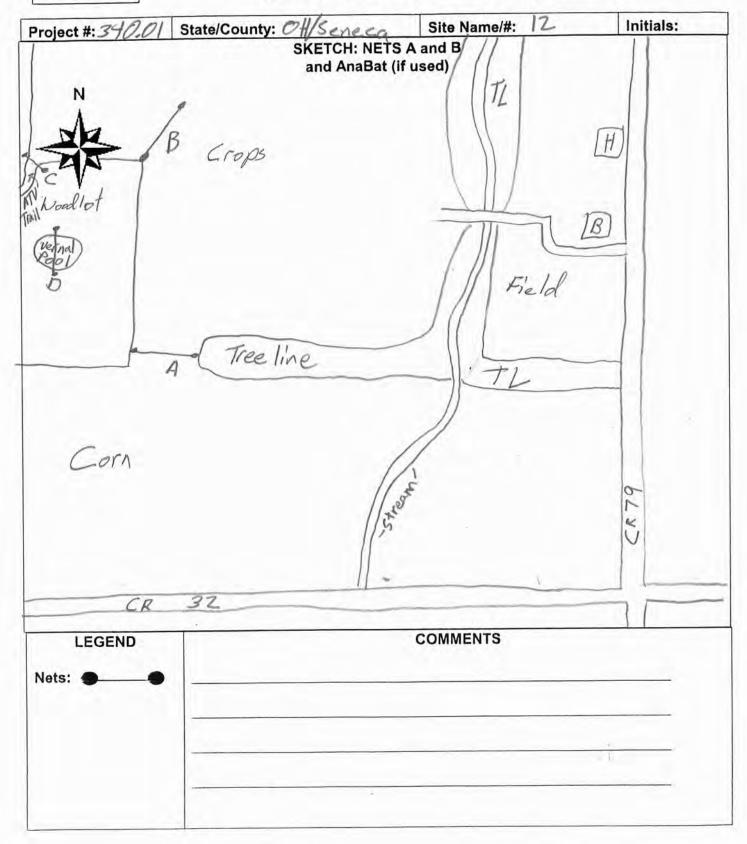


Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)

NET SITE HABITAT DESCRIPTION

Project #: 390.01 Date: 30 July 1	Biologists: J. Bas/g	el	
Project Name: Republic	Site Name/#: /2		
State: OH County: Seneca	USGS Quad: Fires	ide	
Net/Trap/ Net/Trap/ Latitude	Longitude	Picture #	Waypoint #
or AnaBat AnaBat Serial # H o 13 ' 11,3 "N	82.50 · 258 "W	978	
B N 91.13 197 "N	82 °56 '27,7"W	979	
G N 91 ° 13 ' 19,5 "N	82.56 '30.7 "W	980	
0 N 41.13 12,5"N	8 Z ° 56 ' 30,5 'W	981	101
Distance to closest water source (meters):	Type of water soul	Ce. cerna	Pool
Water source name:	WE WINDER METON		
ESTIMATED WATER SOURCE CHARACTERISTICS		17 mate	
	meters Stream Width:		ers
- 17	GravelSandS		
Still Water Present (Y/N): Average Water De	epth: 5 m or cm Clarity	(H,M,L):	_
VEGETATION:	50.50 100 100 100 100 100 100 100 100 100 1	Cours 14	
Dominant Canopy Species (> 40 cm/16" dbh)	Subdominant Canopy Spec	ies (< 40 cr	n/16" dbh)
Carra ovata	Carya ovata		-
Estimated dbh range: Lg: 75 Sm: 40	Estimated dbh range: Lg:_	39 Sm	:12_
Relative abundance of dominant vs. subdominant (rat			
Estimated canopy closure:Closed	Modera		Open
Roost tree potential consists of: Large 1	TreesSnags		Neither
Roost tree potential for the area is:	Modera	te	Low
Roost potential comments: large saas and 17	ve tree w/ losse flak	key bart	
Subcanopy clutter:Closed	VModera	te	Open
	Branches ofSaplings	s	Shrubs
Common Subcanopy Species:			_
Habitat Description: Large wood lot surroun	ded by cropfields		
AnaBat Habitat: N/A			
Check all that apply:			
Mature Upland ForestRecently Logged Forest		_0	ther
Young Upland Forest Forest Edge	Stream/River	_	
Mature Lowland Forest	_∠Vernal Pool Deepwater Lake/Por	nd	
42.000	Deepwater Eartery or		
Herbaceous Cover: SparseModerate Revised April 2011	1		

NET SITE HABITAT DESCRIPTION (continued)





|--|--|

MOON PHASE*

New moon	Wax
Waxing gibbous	Full
Last quarter	Wan

ng crescent noon ng crescent

	nents											
	Comments											
	% Cloud Cover (estimated)	25	25	5	S		7	1,	1	1	1	
WEATHER DATA	Wind Direction: From to	(1	1	1	1	١	1	ı	1	1	
W	Wind Speed (estimated – see chart)*	١	1	١	1	١)	1.3	1-3	1-3	1-3	
	Temp (°C)	26.9	25.6	24.9	34.6	24.5	2.4.2	24.1	24.0	23.6	23.4	
	Time (0000 h)	230 26.9	7200	2230	2300		0000	0200	000	0/30	0200 23.	

Net/Trap/Anaba:	Net/Trap Type1		7	atitude				-ongitude		Length (m)	Height (m)	(0000 h)	(0000 h)	Picture #
N.	111	5	0/3		12	Z	82.58	1		18/	8	2035	200	978
0.0	11	19	100	. 10	11	Z	82.56	-	Ma 4	00/	6	2040	205	679
30	2	16	. 13	19	5	Z	30.00	-		4	0	5002	36	986
0	0	16	13	12	Ś		82 56	130.7	2	0	6	2050	2/5	186

Species	S	Time	Age (Ad/Jv)	Sex (M/F)	Repro. 2	Wt (9)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
SUSUSSE	borealis	71.42	3	L	NR	11.00	h	M		
	ب	TY.K	>	1,1	NE	16,00	24	8	U	
Lasiuhus	B.ofeal'S	81.22	AD	بنا	17	00 17	30	W	0	
ندد	は	77.700	>	L	NA	15.58	517	W	0	
	Ť.	77.57	>	1	NR	13	七日	W	0	
	-	27.77	11	U.	4-	000	32	W	0	
- 3	0	77.15	70	L	10	14.75	75	Ę,	0	
	Ci.	F1.17	>	M	4	1,00	1	W	0	
ندا ا	i	77.30	OF.	N	2	18,00	117	W	0	
1 _	i co	72.00	-	-11	NO	9,00	=	سل	0	

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat ² Reproductive Condition; Female = NR/PG/L/PL; Male = ↑/↓
* Refer to table on the back

	이, 6-26 株	PH 411-43
5000000	000000	00000
Bers Trans	W T & T E E	ELL TI
25 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	25, 25, 25, 25, 25, 25, 25, 25, 25, 25,	7002 12
2 827 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4.50 2.50 5.50 5.50 6.55 6.55 6.55	25.77 17.50 18.75 19.75
SAPPAN A SAPPAN	2789**	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
N Z HTTHE	33444	11-11-11-11-11-11-11-11-11-11-11-11-11-
\$ 4 - 3.3 Ex. 3.	>4>6 > 4	13.3.3.3 \$1.3
TW 7230 87230 87230 87230 87230 87230 87230 87351 8735	12:00 72:00 85:62 95:52 95:52	01:00 01:01 01:01 02:50
E + 105,005 T - 405,005 T - 4	E. fuscus E. fuscus E. fuscus E. fuscus E. fuscus E. fuscus	T. Fuscus
= 50575	75500	22 222



 Project #: 3 40 01
 Date: 30 Jul | |

 Project Name: Republic
 State: OH

 County: Republic
 County: Republic

 State: OH
 County: Republic

 Biologists: U. Basiger
 Site name/#: Z

 Site name/#: Z
 Camera #: CanCZ!

MOON PHASE*

New moon Waxing crescent First quarter

Waxing gibbous Full moon Waning gibbous

Last quarter Waning crescent

		The same of the same of the same of	THE STATE OF THE		
Time (0000 h)	Temp (°C)	Wind Speed (estimated – see chart)*	Wind Direction: From to	% Cloud Cover (estimated)	Comments
2100	22.6	2-1	WYE	1	
130	22.1	2-/	NAE	-	
200	20,07	- X-1	W>E)	
57			ルシな)	
25.20		1	1)	
2		1))	
0.77	201			١	
	20,1))-)	
	1.0	1.3	11/3E	10.	
130	19,5	1))	
OZDO	19.5)	1	7	
	-				

					Contract of the Contract of th	1							
Net/Trap/Anabat	Net/Trap Type1		atitude			Lon	gitude	Length (m)	Height (m)	Time Up (0000 h)	Time Down (0000 h)		Picture #
A	N	4.16	511.	Z		38	. 25,8 "W	18	6	2030	200	26	
8	111	01 . 13	. H.	Z		38	W. L 72.	8/	0	2035	205	979	
. (N	41.13	5/1.	Z		28	. 30,7 W	0	9	20/10	210	086	
Q	Citation of the Control	8/ 13	12,5		2	26	30.7	8	6	20%	2/3	185	
Net Placemen	Net Placement/site Description	1											

Comments Picture # /Guano/Hair Sample						Control of the Contro			
Picture #									
Wing Index* (0-3)	0	0	,C	0	1	ť	V		0
Belly (F/M/E)	10/	A	<	4	U	F	TH	ш	M
(mm)	16	04	47	5	5	45	0	42	2/2
(g) Wt	13	4	9	7	LV	92	591	10	18.5
Repro. ²	NA	<	7	7	S	V	AI	MR	ナイ
Sex (M/F)	L	Z.	1	1	Z	V	1	er.	U
Age (Ad/Jv)	3	200	40	Do S	1	6	10 de	OA d	A
Time	2195	1201	0072	1.22	22.5	22.50	5.22	230	73.19
Species	21 Somodis	1/2	(cm = 545645	FUSIOS	550	Borealis	405005	Jorn S	73555
	Lasicen	Losse	Ere	Li	E.	١	i		1
# Wet	0	0	0	0	A	A	10	1	1
Capt #	X	1	10	37	Lo		1	On .	10

M = Monofilament, ON = Old Nylon, NN = New Nylon. HT = Harp Trap. A = Anabat * Refer to table on the back

* Reproductive Condition Female = 11R/PG/L/PL, Male = 1/L



NET SITE HABITAT DESCRIPTION

Project #	: 346	Date:	7/20/11	Biologis	sts: A. Knio	w5/5: 1	farma
	lame: Republi	4	, ,	Site Na	me/#: / 4	1	
State: 0		inty: Sance	9	USGS C	Quad: Fires	ide	
Net/Trap/ or AnaBat	Net/Trap/ AnaBat Serial #	Latitu		1,000	itude	Picture #	Waypoint #
A	Net	41 . 13 .	62,6"N	82 ° 53	137-4 "W	106-0662	34014A
B	Net	410131	04.6"N	UL	14/, L "W	106-0661	34014 B
E	Net		-1-1	100	, 43, 5 "W		34014C
D	Net		05 16"N 5		, 44.4 "W		340140
	to closest water urce name:	source (meters):_ 500 m	Туре	of water soul	rce: <u>sta</u>	CaM_
ESTIMAT	ED WATER SO	URCE CHARA	CTERISTICS (IF	UNDER N	ETS):		
Substratu Still Wate	um:Bedroo er Present (Y/N)	kBoulder	el Width:iCobble rage Water Depti	_Gravel	_SandS	Silt/Clay	-
VEGETA		- /- 10/10"	dhh) Cu	hdominant	Canany Snac	ies /< 10 cr	m/16" dbh)
the state of the s		es (> 40 cm/16"	aon) Su	Carried CO. Dr. Co. St. Co.	Canopy Spec		ii/ io doii)
	105 0160						
Caru	ga ovata						
Relative			Es dominant (ratio): Closed		range: Lg: _ _ Modera		: _/ <u>></u> Open
Roost tre	e potential cons	sists of:		es	<u></u> Snags		Neither
	ee potential for t		High		/_Modera	te	Low
			1 loose bar	K	-40		
Subcano	py clutter:		Closed		// Modera	te	_Open
Subcano	py comprised la	rgely of:	Lower Bra Canopy Tre		<u></u>	s	Shrubs
Commor	Subcanopy Sp	ecies:	Prvnus s	erotina	-		
Habitat D	Description:	goodlot ne	ar cropl	and /1	arvi		
AnaBat H	Habitat: N/A						
	ll that apply: e Upland Forest g Upland Forest	A - A	Logged Forest	Stream		c	ther
	e Lowland Fores			Vernal	Pool ater Lake/Po	nd	
		_	i -	Dccpw Dens			
Herbace Revised Ap	ous Cover:	_ Sparse	<u> </u>	Dens	C		



NET SITE HABITAT DESCRIPTION (continued)

roject #:	State/County:	Site Name/#:	Initials:
		SKETCH: NETS A and B and AnaBat (if used)	$\sim r /$
N		and the same of th	
A		Wood lot	and and
NE		D Was 12	do
4		(B)	0
		10	0 100
18			15
Se	+-1		
	DWM		v -5_
	prive 12		V
	house		roodlof
	+	Cropland	1
			-
		9	1 /
			\
LEGEND		COMMENTS	
lets:			
10101			

BAT CAPTURE DATA

Project #: 340 Date: 26 JJ 2011

Project Name: Republic

Biologists: A. Emprovide & Site name/#: 14

State: Off M. Farman County: Senera

GPS Unit #: 7

Camera #: 11

		WEATHER DATA	ATA	ATHER DATA	
Time (xxxx h)	Temp (°C)	Wind Speed (estimated – see chart)*	% Cloud Cover (estimated)	Comments	
100	7-8-7	1-3	30%		
2 30	27.5	7-7	30%		1
220C	27,3	1-3	30%		
1230	27.0	4-1	C		
2360	67.1	9-17) (
2330	27.0	017	0		
0000	27.3	Ø-7	Ø	Wind gusts 13-18mon	18
0630	27.0	8-12	Ø	0/1/0	
0010	26.9	8-12	0		
0130	16.5	4-12	0		
200	26.3	13-13	10%		
0200	26.3	13-13	10%		

##	Y A	3	V	0
Waypoint #	2401	34014 B	24014	34014
Picture #	106-0662 34014		0990-90	108-0659
Time Up Time Down (xxxx h)	224	217	207 1	201
Time Up	2105	5012	2100	2100
Height (m)		2	1	9
Length (m)	12	8	9	0
Longitude	W" 1. 75 . 37.4 "W	82 ° 53 , 41.2 "W	82 ° 53 , 43,5 "W	82 ° 53 , 44,4 "W
Latitude	11 . (3 . 02. 67N	N. 9160, E1 . 16	N. 6.20 : 21 . 17	N. 9:52. EL . 14
Net/Trap/ AnaBat Serial #	1264	nes	MCL	nct x
Net/Trap/ or AnaBat	*	3	7	0

Net Placement/Site Description; PM 4 VAT

Capt Net/ # Trap	sp Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. 2	M (o	(mm)	Belly	Wing Index*	Comments Picture # /Guano/Hair Sample
1	F. 405	2148	75	E	2,	16.0	34	3	D	
2 4	L. bor	2220	3	E.	MA	000	00	Ш	É	
3 4	L. DOF	0222	3.	8	MR	52	33	Ш	B	
1-	M Sep	2230	B	2	N12	6.2	34	M	P	
7 5	to fus	2315	64	3	NR	17.0	95	Ш	Ø	
Y	This St.	2315	Ad	11	7	17.5	43	2	Ø	old breek on wing
7 A	To. 403	2318	3	N	NR	1516	九九	S	Ø	3
8	E. A.S.	2318	Ad	Σ	NR	16.0	1.39	Z	Ø	
₹.	F. 603	2318	3	L	707	13.4	207	7	B	

¹ Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓ * Refer to table on the back



Project #: 340 Project Nam

7/20/11

Proje	73	ài	Site	Name/#:	161				u	Initials:	
Capt #		Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
0)	4	E, fus Lus	2319	-	7	2	7.51		L	Ø	
17	(2)	E. foscus	2334	Ad	H	7	20.2	-	U	d	
7	Œ	E, fiscus	2340	Ad	N	+	14,8	25	3	Ø	
0	4	E, fuscus	200	3	F	NR	15,4	3/3	14	Ø	
14	A	E. foscus	280	2	IT	7	23.0	25	Ti	P	
5	a	M. 100:	550	30	N	NR	7.5	5	٤	p	
16	V	M. San	124	Ad	2	AVR	7.0	10	71	b	
		0									

Wind Speed (mph)	Description	Visible Condition
0	Calm	Smoke rises vertically
1-3	Light Air	Direction of wind shown by smoke but not by wind vanes
4-7	Light Breeze	Wind felt on face: leaves rustle: ordinary wind vane moved by wind
8-12	Gentle Breeze	Leaves and small twigs in constant motion: wind extends light flag
13-18	Moderate Breeze	Raises dust and loose paper: small branches are moved
19-24	Fresh Breeze	Small trees in leaf begin to sway, crested wavelets on inland water
25-31	Strong Breeze	Large branches in motion: telephone wires whistle: umbrellas used with difficulty
32-38	Moderate Gale	Whole trees in motion: inconvenience in walking against wind
39-46	Fresh Gale	Breaks twins off trees: nenerally impedes progress

Score	0	-	2	60
Description	No damage. Fewer than 5 small scar spots are present on the membranes.	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (spotching). Scarning is visible without translumination. Membrane exhibits some necrotic tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

ESI

BAT CAPTURE DATA

Project #: 340 Date: 7/22/11

Project Name: Regublic

Biologists: 4 Kniewski Site name/#: 14

County: Seneca

Camera #:

14

State: CPS Unit #:

Time (xxxx h)				
	(°C)	Wind Speed (estimated – see chart)*	% Cloud Cover (estimated)	Comments
2/00		0 1	07	
052		5-17	04	
2200		4-4	0.5	
2230		2/-8	50	
2300		レール	0)	
2330		8/1/2	07	
000		8-12	0.	
000		1 - 17	Thurder	180.12
Nerk	700	2-51 \$ 51/2	of I'chilm	1901 2
)			3	7
RV.	nined	400		

#	8	10		6	0
Waypoint #	34019	34019	361068	34010 D	4
Picture #	186-0662 34014A	1990-90	0.990-9	1590-90	Mich ar
Height Time Up Time Down (m.3 (xxxx h)	0000	0000	2000	2000	1 ACL
Time Up (xxxx h)	2102	2108	2104 0005	2105 0005	EXCEP
Height (n. 2)	6	9	9	N	40/100
Length (m)	12	9	9	9	1, 1,0
Longitude		W" 2,11,2 "W	W" 2,54 . 43,5 "W	M.h.h. E5.28	Swall trails in rood at except Lawlich are at fine
Latitude	41 . 13 . 02,6"N		8 N. 6.30 . El . 14	8 N. 9'50 . El . 1h	Vets arrass
Net/Trap/ AnaBat Serial #	het	tou.	Met	net	Net Placement/Site Description:
Net/Trap/ or AnaBat	Y	Ď	U	9	Net Placemen

	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index*	Comments Picture # /Guano/Hair Sample
4	4	Color Lacos	2205	Ad	Y	75	16.3	70	I	Q	
	0	F 4032003	2212	Lol	U.	72	6.121	hh	U	Ó	
	7	E. Fuscus	2220	110	L	7	18.0	13	101	B	
-	+	1 Doreals	2226	30	M	X	9.5	0/2	LL	B	
	0	E. Csc 3	2227	100	13	1	1 67	45	LL.	þ	
	1	Lister City Co.	22 VIC	R	5	2	17.5	52	5	0	
	00	F. F. S. S.	2249	Ad	2	->	17.5	6/3	ž	Q	
T	1	FI + 65 COS	2300	3	I	NIR	2 2	2	5	Q	
1	I	E fire is	2300	49	U	1	2 14	レレ	a		



Date:

290

Project #:

Projec	Project Name:			Site	Site Name/#:	51.				<u>u</u>	Initials:	
Capt #	» wet	Species		Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
0	4	E FIRCUS	ī	23 15		17	N	15.0	46	120	6	
11	×	E +4.96115		2320	2	T	Z/S	6.71	499	1	b	
12	1 2	A. A.SCIV		23.28		201	SIN	15.5	hh	N	de	Very Young
13	A			2326	10/	U	1	220	83	T	8	3
2	4	T-65000		2335	3	2	WS	149	42	U	B	
Cu	A	F. P. S. 175	r.	0382	30	L	NR	11.9	24	E	8	
97	A	The Abstrace	,	2350		17		20.01	46	٤	Ø	
		(
		Kain	JUL									
										4		
										Const		Description
Wind Speed (mph)	pa	Description	Visible Condition	c						0	1	No damage. Fewer than 5 small scar sections: No damage. Fewer than 5 small scar section the membranes. Link damage. Jees than 50%, of link membrane is decignmented (soliciting).
		The state of the s				Т					The regularity within	פ מומון מס יום וויאווייייייייייייייייייייייייייייי

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	 Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarning is visible without translumination. Membrane exhibits some necrotic issue and possibly few small holes (<0.5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
m	Heavy damage. Deteriorated wing membrane and necrotic fissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plaglopatagium and/or chiropatagium are evident.

Smoke rises vertically

Direction of wind shown by smoke but not by wind vanes

Wind felt on face: leaves rustle, ordinary wind vane moved by wind

Leaves and small wigs in constant motion, wind extends light flag

Raises dust and loose paper; small branches are moved

Small trees in leaf begin to sway; crested wavelets on inland water

Large branches in motion; leiephone wires whistle; umbrellas used with difficulty

Whole trees in motion; inconvenience in walking against wind

Breaks lwigs off trees; generally impedes progress

Calm
Light Air
Light Breeze
Gentle Breeze
Moderate Breeze
Strong Breeze
Strong Breeze
Moderate Gale
Fresh Gale

1-3 4-7 8-12 13-18 19-24 25-31 32-38 39-46

Comments

Cover (estimated)

(estimated - see chart)*

5,75 24.5 24.1

2/30

2100

(xxxx h)

Temp (°C)

% Cloud

1000%

C6001

00

1000

0000

22,4

2230 2300

2200

00000 0030

2336

100 %

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001 00

1,00

200

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23

0200

0510

G10C

22.9

Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777). WEATHER DATA

BAT CAPTURE DATA

area Date: 24-5-2011 County: Seveca resorme Site name/#: Camera #: Cree Biologists: A. Kniewski Hone Project #: 3 4 ○ かり Project Name: GPS Unit #: State:

Longitude	Latitude	et/Trap/
		ran
	opidiaco I	operation of

Net/Trap/ or AnaBat

advacent to field edp. 340146 340140 H 410/2 2990 34014B 0990 653 1990 225 550 200 hich 2100 2100 2010 4 * not excep 0 to 137,4 W 3 , c//2"W W. 5, 57. M. 5'55 . 8 wedl FR:15 82.5 5.28 0 78 and N. 9. 20 . N. 6. 30 . 02.9 "N N. 9.20. accross 41012 7 N 0 0 Net Placement/Site Description: 0 5 15 1 アクナ +0 100 9

-	Net/		i	Age	Sex	Repro. ²	Wt	RFA	Belly	Wing Index*	Comments
#	Trap	Species	ıme	(Ad/Jv)	(M/F)		(a)	(mm)	(F/M/E)	(0-3)	Picture # /Guano/Hair Sample
-	X	*() (Sign) \$500 (V)	2110	> M	10	NR	5.8	28	Ш	D	
	t	T Some	0203	1)0	11	S	16.2	X	4	X	
cu	4		2225	1	(_	22	(38	26	S	6	
1	t	E fuscus	2250	7	Σ	NR	15.7	34	8	Ø	
5	4	E. Luscus	22.65	20	N	NR	13.7		11/	Ø	
Q.	4	2 actions Citimoreus	2255	30	Y	シス	18.6	7	F	Ø	
1	4	E fuscus	2255	Dol	A	72	10		Z	9	
B	4	E. Fuscus	2255	くと	5	NR	19,2	917	Y	Ø	
0	1	E. Frecus	23/5	75	E	282	1.5	27	7	, Q	

* Refer to table on the back 1 Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓

Page 1 of 3



Date:

240

Project #:

Picture # /Guano/Hair Sample Comments Wing Index* (0-3)Initials: Belly (F/M/E) 2 5 07 5/2 RFA (mm) カカ 70 55 35 35 7 24.2 20,4 3.8 9 2 8.9 .61 ¥ (6) 2 15 0 N Repro.² NZ 2 SA NZ à 2 A 0 0 Sex (M/F) T Age (Ad/Jv) Site Name/#: B Los 0000 0030 2340 0030 1320 2320 2340 0030 2340 0030 9198 101.9 Septentil 1015 0010 1410 5/10 0110 Time Seplentrionalis 11205 3 reus boneal. 3 105 CUS E. 4500% Species FUSCUS. くついかり FUSCUS Aust. 2 V 1.11 12 U Project Name: Net 4 J J V 50 Capt # 20 5 00 5 0 0 W N

Visible Condition		Direction of wind shown by smoke but not by wind vanes	Wind felt on face; leaves rustle; ordinary wind vane moved by wind	Leaves and small twigs in constant motion; wind extends light flag	Raises dust and loose paper, small branches are moved	Small frees in leaf begin to sway; crested wavelets on inland water	Large branches in motion; telephone wires whistle; umbrellas used with difficulty	Whole trees in motion, inconvenience in walking against wind	The state of the s
	Smoke rises vertically	Direction of wind shown b	Wind felt on face; leaves r	Leaves and small twigs in	Raises dust and loose pay	Small frees in leaf begin to	Large branches in motion	Whole trees in motion; inc	Designation of the same assessment of the same of
Description	Calm	Light Air	Light Breeze	Gentle Breeze	Moderate Breeze	Fresh Breeze	Strong Breeze	Moderate Gale	
Wind Speed (mph)	0	43	4-7	8-12	13-18	19-24	25-31	32-38	

Score	Describani
0	No damage. Fewer than 5 small scar spots are present on the membranes.
	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching). Scarning is visible without transfurmination. Membrane exhibits some necrotic tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
6	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

Page 2 of



roject	Name	Project Name:	Site	Site Name/#:	61				<u>n</u>	tials: AK	
Capt Net # #	# #	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	g) Wt	(mm)	Belly (F/M/E)	Ily Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
29	X	L Cinevous	140	10/	L.	74	29.5	200	141	6	
	4	Cinereus	0 71	3	щ	*	22.0	200			

	Visible Condition Smoke rises vertically
	Direction of wind shown by smoke but not by wind vanes
	Wind felt on face; leaves rustle; ordinary wind vane moved by wind
	Leaves and small twigs in constant motion; wind extends light flag
Moderate Breeze	Raises dust and loose paper, small branches are moved
	Small trees in leaf begin to sway; crested wavelets on inland water
	Large branches in motion; telephone wires whistle, umbrellas used with difficulty
	Whole trees in motion; inconvenience in walking against wind
	Breaks twigs off trees; generally impedes progress

Score	Description
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
2	Moderate damage. Greater than 50% of wing membrane covered with scar tissue (splotching), Scarning is visible without transfurniation. Membrane exhibits some necroic issue and possibly five small holes (<0,5 cm diameter). Forearm skin may be faiking and discolored along the majority of the forearm.
m	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

Page 2 of 3



NET SITE HABITAT DESCRIPTION

Project #: 340	Date: 7/26/	/// Biologi	ists: A. Kai	owski,	J. Kein
Project Name: Project Name:		Site Na	me/#:	5	
State: OH County:	Seneca	USGS	Quad: Wats	on	
Net/Trap/ Net/Trap/	Latitude	Lon	gitude	Picture #	Waypoint #
A AnaBat Serial#	. 12 '02,9"N	83 ° 00	' 59. 7 "W	0668	340A15
B net 41	· 12 '04.1 "N	83.00	'56.6 "W	0671	340815
c net 41	· 12 '026 "N	83 ° 00	'57.6 "W	0669	340C15
D nel 41	. 12 '02,7 "N		'99,4 "W	0670	340 DIS
istance to closest water sour	rce (meters):15	n Type	e of water soul	ce: crei	=/e
Vater source name:					
STIMATED WATER SOURCE	CE CHARACTERIST	ICS (IF UNDER N	IETS):		
Bank Height: meters	and the same of th	4 meters		_3_met	ers
Substratum:Bedrock					
Still Water Present (Y/N):					
	Average vvale	a Deptili, <u>75</u> ili o	TOTA CIGITY	(11,111,12)	
/EGETATION:	40 am/16" dbb)	Subdominant	Canopy Spec	ies (< 40 c	m/16" dbh)
Dominant Canopy Species (>	40 cm/16 dbn)	Subdominant	GACCH	arinu	10/10/10/11
Juglans nigra		-1100	7		200
White and the Park of the			transferance (1986)	UA C.	. 12
Estimated dbh range: Lg: Z		1.1	h range: Lg:	Sn Sn	n: _/S
Relative abundance of domin	ant vs. subdominant	(ratio): //6	-		
Estimated canopy closure:	Clo	sed	Modera	te	_Open
Roost tree potential consists	of: <u></u> <u></u> ∠Lar	ge Trees	Snags	-	_ Neither
Roost tree potential for the ar	ea is:Hig	h	Modera	te 💢	Low
Roost potential comments:	tight bark	*			
Subcanopy clutter:		sed	<u></u> Modera	te	_Open
Subcanopy comprised largely		ver Branches of	Sapling	s	_Shrubs
	Can	opy Trees			
Common Subcanopy Species	s: Acer r	requido	-		
		U		-	
Habitat Description: Wood	Hot near	creek	cropla	nd	
AnaBat Habitat: N/A		(U -		
Check all that apply: Mature Upland Forest	Recently Logged F	orest // Crop/	Pasture Land		Other
Young Upland Forest			n/River		7117
	Woodlot	Verna	l Pool		
	Old Field	Deepv	water Lake/Po	nd	
Herbaceous Cover: Spa	arseModer	ateDen:	se		
Revised April 2011		1			



NET SITE HABITAT DESCRIPTION (continued)

Project #: 340	State/County:	Senaca,	OH Site Name/	#: 15	Initials: AB
		SKETCH: NE and AnaBa			1
N					1 /
Å			Field		
MA					
AN)	
V				111	171
-1		111		111	/ / / /
6 6	No	od lot	10 1		0
1/	1	1/	V de		Road
		+	- 1		T T
		1		. 1	111
		1		10	+
P		B			- Q
6 D	overgrown &				(3-
	g	6	/-		100
		0		0	
		Tralle	interes.	(A)	D
			ree		
\		Wood)			
		4/6	07		
1					1 1 -
1				*	1
LEGEND	-		COMMENTS		
			COMMENTS		
lets:	-				
	-				
	-				

BAT CAPTURE DATA

26 Date: 7/ 340 Project #:

Project Name: Re

J. KICSite name/#: 七〇 Biologists: A

GPS Unit #: State:

County: Some

Camera #:

Time Temp Wind Speed (xxxx h) (°C) (estimated – see chart)* 2030 204 1 – 3 2030 224 1 – 3 2100 22 + 7 2 2230 21 6 -3 2230 21 6 -3 2230 20 6 4 -3 2230 20 6 4 -3 2230 20 6 4 -3 2230 20 6 4 -3 2230 20 6 4 -3 2230 20 6 6 6 -3 2230 20 6 6 6 6 -3 2230 20 6 6 6 6 -3 2230 20 6 6 6 6 -3 2230 20 6 6 6 6 -3 2230 20 6 6 6 6 -3 2230 20 6 6 6 6 -3 2230 20 6 6 6 6 -3 2300 20 6 6 6 6 -3 2300 20 6 6 6 6 -3 2300 20 6 6 6 6 -3 2300 20 6 6 6 6 -3 2300 20 6 6 6 6 -3 2300 20 6 6 6 6 -3 2300 20 6 6 6 6 6 -3 2300 20 6 6 6 6 6 -3 2300 20 6 6 6 6 6 6 -3 2300 20 6 6 6 6 6 6 6 -3 2300 20 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Pirol 70	
201-1 201-2 201-2 201-8 201-8 191-8 191-8	ဝိ	Comments
20.05 20.09 20.09 20.03	20%	
	20%	
	20%	
	150/8	
	100%	
	200	
8 N 2	%S	
1,30 14,3 1-3	5%	
2:00 18,9 1-3	965	
2:00 18,9 1-3	69%	
	0%0	

A net 41.12.02.9"N 83.00.54	- 11		(II WWW)	(II WWW)	
(11 0 17 1 A4.) "NI G2 0 AA	M. + 169.	0	0 32050 0156	0156 0665	340415
20 00 00 00 00 00 00 00 00 00 00 00 00 0	W" 8,62.	8	2100	202 067	340815
5. net 41.12.026 "N 83.000 57	W" 8,72.	6	2107	209 066	340615
D net 41.12.62.7"N 83.00.59	Na 6.85.	8	2110	220 067	340015

Net Placement/Site Description

	Net/ Trap	Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
	2	M, Luci	71:30	4	W	7	2.4	27	المدا	0	
	<u>m</u>	M. Luci	21:30	707	W	->	6.7	60	ш	0	
	PA	M. Luci	71;30	10	W	NR	4.4	37	111	9	
	S	M. Luci	21;30	>	121	NY	N	9	<u>(1 ^ 4</u>	0	
	M	M. 1.00	71:30	>	3	NR	8.8	38		0	
1	2	Mr. Luci	21.35	DD	Z	->	7	38	1-17	0	
	0	M. Luci	21,35	-0	×	7	7,3	27	U	0	
	8	M. LVCI	21:35	70	2	7	5.5	20		9	
	PO.	M. Lvc.	21:35	25	10/	an	5.9	36	(1)	0	

¹ Reproductive Condition: Female = NR/PG/L/PL; Male = ↑/↓ * Refer to table on the back



Picture # /Guano/Hair Sample Comments Wing Index* (0-3) 0 0 Initials: Belly (F/M/E) 2 RFA (mm) T. 34 60 5 ₩ (g Repro.² Sex (M/F) 3 12 Age (Ad/Jv) Site Name/#: 1:49 0 18:22:31 25:02 77:42 0 .50 00, 1/18 60 177.90 P いっという J8605 4 Species Ser 200 M. Cer M. 100 340 Project Name: Project #: Net # 0 Capt 3 N J

Score	Describani
0	No damage. Fewer than 5 small scar spots are present on the membranes.
-	Light damage. Less than 50% of flight membrane is depigmented (splotching), which is often visible only with translumination.
	Moderate damage. Greater than 50% of wing membrane covered with scar lissue (splotching). Scarning is visible without translumination. Membrane exhibits some necrotic tissue and possibly few small holes (<0,5 cm diameter). Forearm skin may be flaking and discolored along the majority of the forearm.
m	Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes >0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or chiropatagium are evident.

0	-			6	7		6	9	
Visible Condition	Smoke rises vertically	Direction of wind shown by smoke but not by wind vanes	Wind felt on face; leaves rustle; ordinary wind vane moved by wind	Leaves and small twigs in constant motion; wind extends light flag	Raises dust and loose paper, small branches are moved	Small trees in leaf begin to sway; crested wavelets on inland water	Large branches in motion; telephone wires whistle; umbrellas used with difficulty	Whole trees in motion; inconvenience in walking against wind	Breaks twins off trees, generally impedes progress

Calm
Light Air
Light Breeze
Gentle Breeze
Moderate Breeze
Strong Breeze
Strong Breeze
Moderate Gale
Fresh Gale

0 1-3 4-7 8-12 13-18 19-24 25-31 32-38 32-38

Description

Wind Speed (mph) Page 2 of



BAT CAPTURE DATA

Property of: Environmental Solutions & Innovations, Inc. 781 Neeb Road. Cincinnati, OH 45233 (Phone: 513-451-1777)

Project #: 340		Date: 7/2	17/1
Project Name:			4
State:	County: Sarced	coa	
Diologicte:	Land Chi	1 Klainhes 7	7
Didioglass	- Constant		
Site name/#:	(5		
GPS Unit #:	4	Camera #:	11 3

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9	2
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New moon	Waxing gibbous	Last quarter

First quarter	Waning gibbous	
Waxing crescent	Full moon	Waning crescent

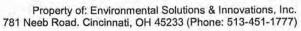
	Comments												
	% Cloud Cover (estimated)	75%	2026	260	1/2/2	18 2	2%	87		9,0			
WEALHER DALA	Wind Direction: From to)	I			1	1	1	1	l	1		
M	Wind Speed (estimated – see chart)*	1-3	1-2	5 -	1-3			27	100	121)		
	Temp (°C)	200	25.6	24.9	24.6	200	200	- 50	- A. IV.	0	22.4		
	Time (00000 h)	21120	77.00	N. C.	73:80	97.20	00,0	3.0	200	110	17.0		

				I amouble	Unioht	Timolla	Time Down	
Net/Trap/Anabat	Net/Trap Type1	Latitude	Longitude	(m)	meigint (m)	(H 0000)	(0000 h)	Picture #
#						- 1- 1-	1	2110110
1	7	Nº 1.60 . 11 0 112	M. 105 . 00 . 23	3	0	0117	イン	2404 (2
t	16					1	1 " 0	15100110
2	1001	N" 1.10 . CIOID	W. 5.52. 00 . 50	V	0		202	5-10 310
2	100							51117
1	10 to 11	UI 0 17 1 62.6 "N	W. 6.75. 000 . 57. 0 "W	5	6		517	370613
J	No.	J		1	1	2116	1	24055
C	+200	41. 12 92.4	23.00 150.1	0	8	1	740	12071

Net Placement/Site Description:

*	Net	Species	Time	Age (Ad/Jv)	Sex (M/F)	Kepro.	(a)	(mm)	(F/M/E)	(0-3)	Picture # /Guano/Hair Sample
*	* (>)	M 12061	11.12	1	7	NR	7.3	17	1	9	
	10	11 11	T. I.	1	7	Z	5 6	エン	H	0	
	1<	200	2 14	17	9	M	2	0	101	V.	
A T	100	1. 1. Sc. J.	13:20	Y O	W	->	7	T	£	0	
				A							
+	-										
1											
1											
				20		1) - cloth - Id II Od all - closed	"DOIDN - C	- oleM . Idi	77,		

¹ M = Monofilament, ON = Old Nylon, NN = New Nylon, HT = Harp Trap; A = Anabat * Refer to table on the back





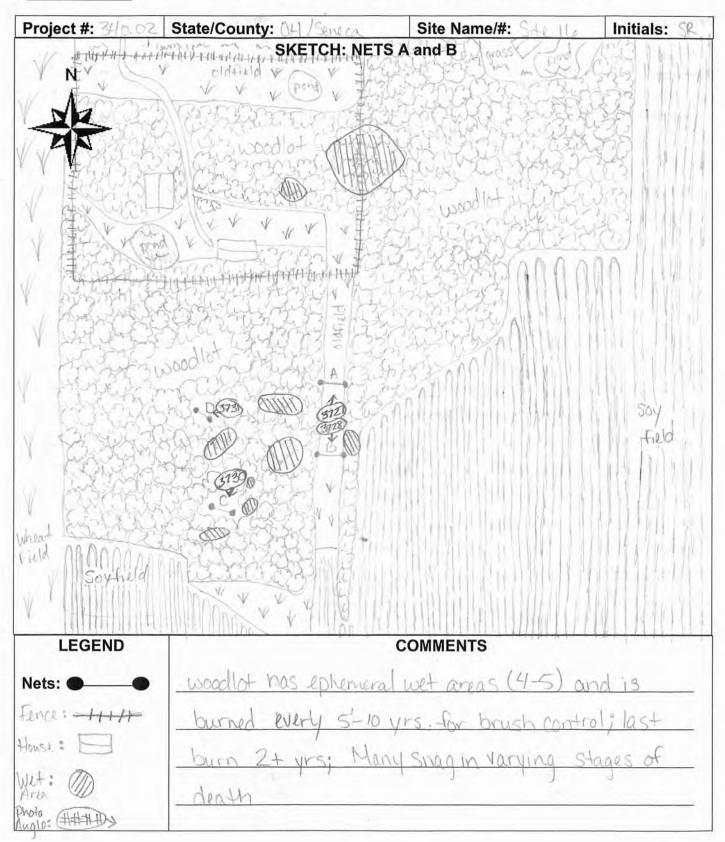
NET SITE HABITAT DESCRIPTION

Project #: 340.07 Date: 20 July 2011	Biologists: D Jellit, S Reeves
Project Name: Tetrafich Republic	Site Name/#: Site 16
State: OH County: Senica	USGS Quad: Figside
Camera #: C4834 Picture #s: 3227 - 3732 Latitude: 41 ° /2 ' 27.6 "N Distance to closest water source (meters): Z50 m Water source name: provide bond (Rud Mar	GPS Unit #: 846 Waypoint #: 023 Longitude: 82 ° 57 ' 7.2 "W Type of water source: pand
ESTIMATED WATER SOURCE CHARACTERISTICS	(IF UNDER NETS): WA
Bank Height: NA meters Channel Width: NA	meters Stream Width: <u>NA_</u> meters
Substratum: MA BedrockBoulderCobble	GravelSandSilt/Clay
Still Water Present (Y/N): N/A Average Water D	epth: Mm or cm Clarity (H,M,L): Mm
VEGETATION:	
Ulmus anericana	Fravious Dennsy Vanica
Acer Sarcharinum	Ulmus anuricana Acu Tar-harman
Estimated dbh range: Lg: 100cm Sm: 40cm Est	imated dbh range: Lg: 31cm Sm: 20cm
Relative abundance of dominant vs. subdominant (rate	
Estimated canopy closure:Closed	✓ Moderate Open
	esSnags _ <u>V</u> Both Neither
Roost tree potential for the area is:High	Moderate Low
Roost potential comments: Snas; Caryo	sp., Ulmus sp., Ares sp.
Subcanopy clutter:Closed	Moderate \(\sum_\text{Open} \)
Subcanopy comprised largely of: Lower Bra Canopy Tre	nches ofSaplingsShrubs ees
Common Subcanopy Species: Juglans nigro	Umus amoviran
Habitat Description: Mature woodlot near s	sayfield with grass air-strip
Check all that apply: Mature Upland ForestYoung Upland ForestMature Lowland ForestYoung Lowland ForestYoung Lowland ForestYoung Lowland Forest	Crop/Pasture LandShrub/scrub Swamp Stream/RiverVernal Pool Emergent WetlandDeepwater Lake/Pon Forested Swamp Other



Property of: Environmental Solutions & Innovations, Inc. 781 Neeb Road. Cincinnati, OH 45233 (Phone: 513-451-1777)

NET SITE HABITAT DESCRIPTION (continued)



BSI

BAT CAPTURE DATA

Project #: 340.02 Date: 20 July 2011
Project Name: Tetratech Republic
Biologists: Duffort SRUVE Site name/#: 5.72 16
State: Chic County: Severa

Time		WEATHER DATA	ATA	
(xxxx h)	Temp (°C)	Wind Speed (estimated – see chart)*	% Cloud Cover (estimated)	Comments
2100	28.2	K /	80%	
2130	27.5	0	30%	
7200	27.3	(-3	30%	
2230	27.0	0	200	
23C)C	22.1	0	0	
223	27.0	(-3	0%	
2000	27.3	4-7	160	
05.30	170	4-7	0%	
000	20.0	8-12	0%0	
0/30	20.5	8-1/2	0%	
0200	26.3	8-12	10%	

ıp/	Net/Trap/ AnaBat Serial #	Latitude	Longitude	Length (m)	Height (m)	Time Up (xxxx h)	Time Up Time Down (xxxx h)	Picture #
1	*	41 . 12 . 27.6 "N	82 . 57 . 07.2 W	2	9.2	2050	0/5/0	3727
1	8	41 . 12 . 265 "N	82.57.07.2 "W	4	9.2	2055	01555	3728
+		41 . 12 . 25.2 "N	W" 8.01: 72.58	()	(0.2	2100	0200	3730
1		Nº 6 CC . CI . 113	M" 8 11. 62 00	1.	()	DING	COCC	X 18/28

		1		
		11	-	
	3	4	1	
,	<	Tool	-	
		V		
		tvo	7	
			1	
		Decription.		
		0	3	
		C	7	
		4:0	200	
		4:0	200	
			200	

Attended - contralle

controller Note OxD in open word

bolonchon Stendard Min

Waypoint #

023

525

Species	Time	Age (Ad/Jv)	Sex (M/F)	Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index*	Comments Picture # /Guano/Hair Sample
21-21-8-12-15-15-15-15-15-15-15-15-15-15-15-15-15-	2200	A	1		18.1	17/7	7	0	
+ + + CC1 >	2008	Ad	A	12	19.9	67	2	(40
F Fascus	2200	>	2		14.4	44	I		Z/A
F Fiscus	215	11	Z		1.8	47	Z		Small hole in left w
THE	Die	1	17		0,0	94	Z	0	X/Z
THEET	855	10/	I	_	18.8	155	2	C	本 2
THE SCH S.	225	7	IT		21.4		5	0	\$\frac{1}{2}
F. A.Sa.s	2220	1	17		110		2	Ć	N/
	01101	1	\		0111		1 4	(N / W

¹ Reproductive Condition: Female = NR PG/LPL; Male = ↑↓ * Refer to table on the back

*

Page 1 of 2



Species Time Age Sex Repro. ² Wt RFA Belly (MIF) (9) (mm) (FIMIE) (10) (11) (11) (11) (11) (11) (11) (11	Project Name: 12-varion 2000 blic	Site Name/#:	me/#:	Sit	0			Ī	Initials:	100
Fruscus 2245 Ad F DL 226 43 Fuscus 2320 Ad F DL 226 445 Fuscus 2320 Ad F DL 202 45 Fuscus 2330 Ad F DL 202 48 Fuscus 2330 Ad F DL 202 48 Fuscus 2330 Ad F DL 202 48 Fuscus 2330 Ad F DL 203 48		Time	Age (d/Jv)		Repro. ²	Wt (g)	RFA (mm)	Belly (F/M/E)	Wing Index* (0-3)	Comments Picture # /Guano/Hair Sample
Fuscus 2300 JV M 13.5 446 N 4 12.5 446 N 4 12.5 445 N 4 14.5 N 14.5 N 4 14.5 N 4 14.5 N 15.5	Totasinis fuscus	V	0	1	70	226	43	I	0	N/M
Fuscus 2300 JV M N 13.5 44.5 N Fuscus 2320 Ad M A 16.7 41.5 N Fuscus 2320 Ad M A 16.7 41.5 N Fuscus 2330 Ad M A 18.5 H Fuscus 2330 Ad M A 18.5 H Fuscus 2330 Ad M A 18.5 H Fuscus 2350 JV M A 18.5 H Fuscus 2350 Ad M A 18.5 H Fuscus 2003 Ad M A 21.8 418 I Fuscus 2003 Ad M A 21.8 418 I Fuscus 2003 Ad M A 21.8 418 I Fuscus 2003 Ad M A 18.5 I Fuscus 2003 Ad M A 18.5 I Fuscus 2003 Ad M A 18.5 I Fuscus 2004 Ad M A 18.5 I Fuscus 2005 Ad M A 18.5 I Fuscus 2004 Ad M A 18.5 II Fuscus 2004 Ad M A 18.5 II Fuscus 2005 Ad M A 18.5 II Fuscus 2004 Ad M A 18.5 II Fuscus 2005 Ad M A 18.5 II Fuscus 2005 Ad M A 18.5 II Fuscus 2006 Ad M A 18.5 II Fuscus 2007 Ad M A 18.5 II Fuscus 2008 Ad M A 18.5 II	\180x 1	2245		4		850	410	2	0	MM
fusus 2320 Ad M	1	2300	>	2	<	20	45	2		N/A
Auscus 2320 Ad M 1 16,71 41,5 N fuscus 2320 Ad M 1 16,0 44 H 5 N 16,0 44 N 16,0 44 N 16,0 44 N 16,0 475 N 16,0 475 N 16,0 475 N 16,0 16,0 16,0 16,0 N 16,0 N 16,0 16,0 N 16,0	T 415/114	2320	100	2	4	2.4	5.17	2	0	支
Auscus 2320 Ad F PL 20:2 45 No. 45:5 No. 20:4 As No. 45:5 No. 6:36 Ad M A 21:8 48 No. 6:36 Ad M A 6:4 35 No. 6:46 No. 6:46 No. 6:46 So. 6:46 No. 6:46 No. 6:46 So. 6:46 No. 6:4	A Principal	2370 +	V	2	4	1107	41.5	2	0	*/
fuscus 2320 Ad M	There	2320 4	50	4	D/	20.2	3	2	0	7/0
fuscus 2330 W M M 13.5 43 M fuscus 2350 W M 16.0 44 N fuscus 2350 W F MR 14.9 485 M fuscus 00030 Ad M 1 21.8 48 fuscus 00030 Ad F PL 20.0 45.5 M fuscus 00030 Ad F PL 20.0 45.5 M fuscus 00030 Ad F PL 20.0 44.5 M	1 4.5.1A	2820	V	2	4	10.00	77/4		C	X X
fuscus 2340 Ad M V 16.0 44 N Luscus 2350 JV F NR 14.8 4755 N Luscus 00030 Ad F PL 20.0 45.5 N Luscus 00030 Ad F PL 20.0 45.5 N Luscus 00030 Ad F PL 20.0 45.5 N F SCUS ONYS AD F PL 20.9 445 N	H-S-S-V	7330		5	<	Nin	43	Z	C	NA
fuscus 2350 JV F NR 14.8 475 N fuscus 00030 Ad F PL 20.0 45.5 N 22/Hentrionalis 0030 Ad F PL 20.0 45.5 N 52/Hentrionalis 0030 Ad F PL 20.0 44.5 N	T. A.Seir	234A	10	15	7	1,0	DH	2	C	1
fuscus 00015 Ad M 1 21.8 48 1 fuscus 00030 Ad F PL 20.0 45.5 1 2004 Arismals 0030 Ad M 1 6.4 35 N	4.5.0	2350	>	11	2	工名	435	Z		NA
Luccus 00836 Ad F PL 20.0 , 20,74 Ad F PL 20.0 , 4 Lo.4 .	S TOWN	10015	A	2	6	21.8	18	2	0	M/M
For Andrianal S DO 36 As M A LO.4	TA	00.36	101	1	70	20.02	45.5	Z	C	hold in right word
FISHUS ONYS AN F PL 20,9 4	1	0636	\$	2	<	7.9	25	2	0	NA
	14	000	A	L	7	20,9	514	I	0	×/A
M 17 0 M M M M M M M M M M M M M M M M M M	100000	010	>	2	4	14.0	17	I	0	まる
M A 1 10 1 34 M A 1 10 1 345 M		0,10	Asi	Σ	4	180	345	2	O	NA

	2000	in a second
Visible Condition	0	No damage. Fewer than 5 small scar spots are present on the membranes.
		Light damage. Less than 50% of flight membrane is depigmented (splotching).
Smoke rises vertically		which is often visible only with transfurningtion
Direction of wind shown by smoke but not by wind vanes		Moderate damage. Greater than 50% of wing membrane covered with scar tissue
Wind felt on face, leaves rustle, ordinary wind vane moved by wind		(spiotching). Scarring is visible without translumination. Membrane exhibits some
Leaves and small twigs in constant motion; wind extends light flag		necrotic tissue and possibly few small holes (<0.5 cm diameter). Forearm skin may
Raises dust and loose paper, small branches are moved	2	be flaking and discolored along the majority of the forearm.
Small trees in leaf begin to sway, crested wavelets on inland water		Heavy damage. Deteriorated wing membrane and necrotic tissue. Isolated holes
Large branches in motion, telephone wires whistle, umbrellas used with difficulty		>0.5 cm are present in membranes. Necrotic or receding plagiopatagium and/or
Whole trees in motion, inconvenience in walking against wind	3	chiropatagium are evident.
Breaks twigs off trees, generally impedes progress		Pane 2 of

Description

Wind Speed (mph)

Light Air Light Breeze Gentle Breeze Moderate Breeze

Strong Breeze Moderate Gale Fresh Gale

Fresh Breeze

1-3 4-7 8-12 13-18 19-24 25-31 32-38

Lage 4 OI

Comments

Cover (estimated) % Cloud

(estimated - see chart)* Wind Speed

Temp (°C)

2160

2130

(xxxx h)

2260

72N

30%

100

Property of: Environmental Solutions & Innovations, Inc. 4525 Este Avenue. Cincinnati, OH 45232 (Phone: 513-451-1777)
WEATHER DATA

2011 Date: 22 July BAT CAPTURE DATA

ESI

758h V Site name/#: Camera #: County: SPINIS Josh H Jh89 Biologists: Project Name: GPS Unit #: Project #: State:

INGOV

Net	/Trap/ t Serial #			Lat	itude			Long	ongitude		Length (m)	Height (m)	Time Up (xxxx h)	Time Down (xxxx h)	Picture #	Waypoint #
-	J	1/7	0	2	N.	7.(S'N	82	15	,72	Λ.	2	0.5	2050	80		023
1	50	17	0	0	16 "	Z.	S	.65.	17	Λ,,	4	10	2055	0185		024

M. 2. >...

0

N.C

0 0

7

Net Placement/Site Description:

Z 6

0 7

200

MOON OLFDO

#	Trap	Species	Time	(Ad/Jv)	(M/F)	repro.	(a)	(mm)	(F/M/E)	(0-3)	Picture # /Guano/Hair Sample
1	B	Toblesines Meris	2125	3	2	4	7 =	17/17	2	0	AN/A
N	d	F. Ascus	2130								Escaped Net
n	12	t froms	2125	KA	4	7	18.91	4117	5	0	*2
17	K	Lasining hopens	2750	A	T	2	13:5	0/5	2	0	3735
10	X	E Lugars	2200	AOI	1		1011	455	2	C	A/A
0	C	T LISANS	2200	Ad	Z	4	19.1	410	2	0	A/N
1	00	T. J. C. S. C. C.	2220	3	2	<	123	93	2	0	NA
B	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2226	3	2	<	14.0	174	Σ	0	Z/2
8	a a	C. Firegia	2220	P	7	6	18.5	7.	I	0	RECEIPTING FOR 20 JULY

* Transmitter bat (172,118)

Page 1 of 2

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in

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

Summary: Affidavit Exhibit J Part 9 of 33 electronically filed by Teresa Orahood on behalf of Dylan F. Borchers