



INVESTIGATOR'S FINAL REPORT
BAT SURVEY FOR GA DEPT. OF TRANSPORTATION
CHATTAHOOCHEE NATIONAL RECREATION AREA
FULTON & GWINNETT COUNTIES, GEORGIA
PERMIT # CHAT-2014-SCI-0004

Date: December 31, 2014

Eco-Tech Consultants (Eco-Tech) was contracted by Mulkey Engineers and Consultants to conduct compliance surveys for existing roadway widening of State Route (SR) 120 in Fulton and Gwinnett Counties, Georgia (Figure 1). At the time of the survey, the project was within the anticipated range of the proposed-endangered northern long-eared bat (*Myotis septentrionalis*), which was proposed for federal listing by U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA) on October 2, 2013 (USFWS 2013). The proposed Georgia Department of Transportation (GDOT) Project P.I. No. 721000 would consist of the widening of State Route (SR) 120 in Fulton and Gwinnett Counties, Georgia. Total project length is approximately 2.5 miles (4.0 kilometers). The approximate project midpoint is located at coordinates 34.03078°N, 84.16890°W.

To fulfill presence/absence survey requirements for the northern long-eared bat, Eco-Tech conducted mist netting and acoustic surveys July 16-July 20, 2014. Three sites were netted within the project area, which consisted of the proposed clearing limits of the project and a 0.5 kilometer buffer. Two of the three survey sites were located on Chattahoochee River National Recreation Area (CRNRA) lands and were surveyed for bats under Permit# CHAT-2014-SCI-2004 July 16-17, 2014.

Thirty-five big brown bats (*Eptesicus fuscus*), three eastern red bats (*Lasiurus borealis*), and one tri-colored bat (*Perimyotis subflavus*) were captured in mist nets on CRNRA lands in association with the project. Analysis of acoustic recordings using Bat Call Identification (BCID®) and EchoClass software identified eight potential bat species present on CRNRA lands including the big brown bat, the eastern red bat, the tri-colored bat, the Rafinesque's big-eared bat (*Corynorhinus rafinesquii*), the silver-haired bat (*Lasionycteris noctivagans*), the federally-endangered gray bat (*Myotis grisescens*), the little brown bat (*M. lucifugus*), and the evening bat (*Nycticeius humeralis*). Manual analysis by Eco-Tech confirmed that at least 6 recorded calls likely belonged to the genus *Myotis*, but species level classifications could not be made.

Eco-Tech conducted a habitat assessment of the project area to assess the summer maternity suitability of forested habitats for the northern long-eared bat. The field summer habitat assessment found these wooded areas to be of low suitability for northern long-eared bat roosting and foraging. The dominant species present were loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), tulip poplar (*Liriodendron tulipifera*), black cherry (*Prunus serotina*), mockernut hickory (*Carya tomentosa*), black willow (*Salix nigra*), southern red oak

(*Quercus falcata*), red maple (*Acer rubrum*), boxelder (*Acer negundo*), white oak (*Quercus alba*), water oak (*Quercus nigra*), and eastern white pine (*Pinus strobus*). In addition to existing forested habitat, the Chattahoochee River and associated tributaries may provide foraging and/or flyway corridors for northern long-eared bats if they are present in the area.

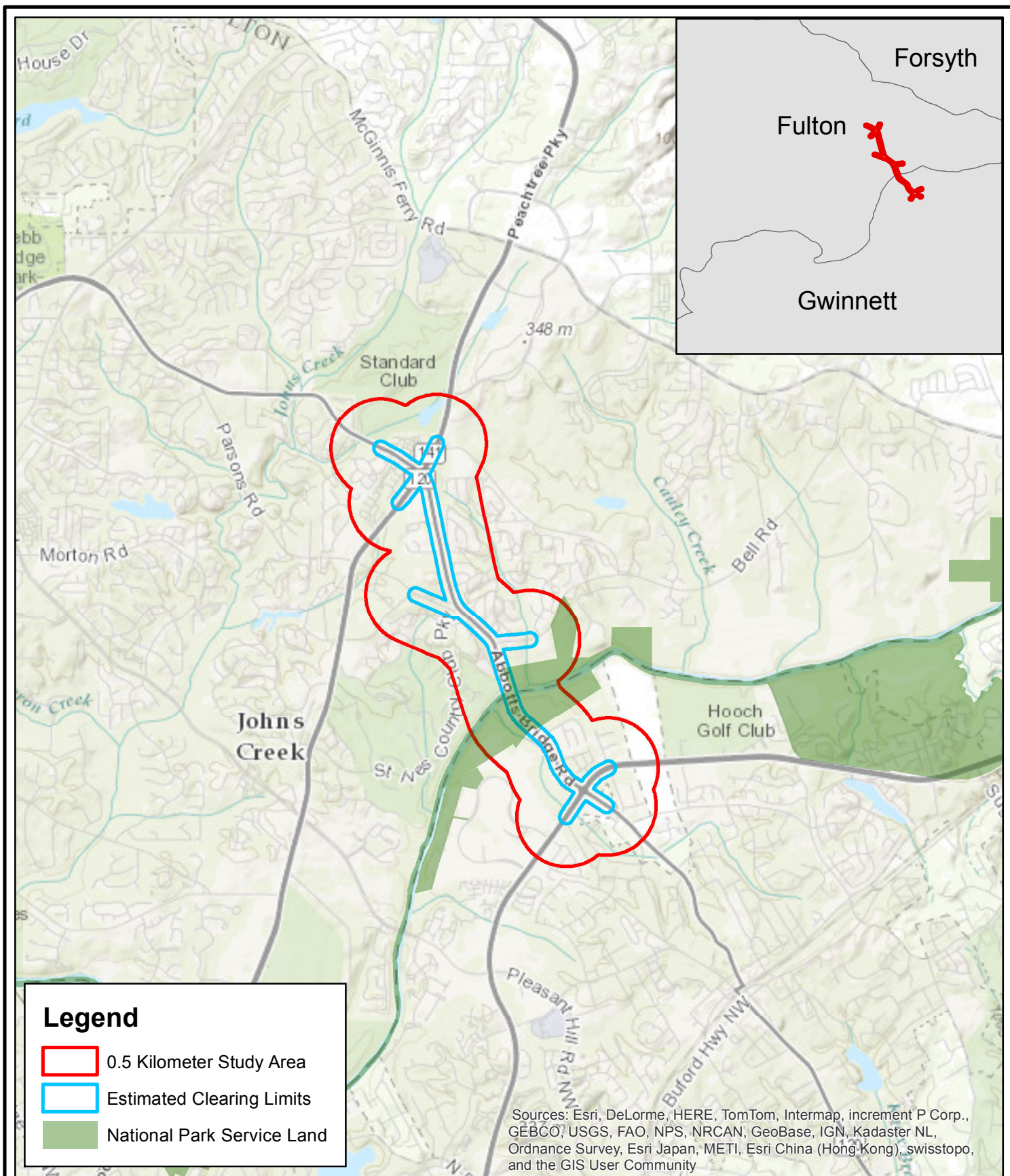
No northern long-eared bats or other federally-listed species were captured during survey efforts. Suspected calls of the federally-endangered gray bat were not confirmed by manual analysis. Existing forested habitat for the northern long-eared bat was deemed to be of low suitability for roosting and foraging. Due to a change in the expected range of the northern long-eared bat on September 29, 2014, there is no longer a Section 7 nexus associated with the project. A Protected Species Survey report was provided to the Federal Highway Administration (FHWA), the U.S. Fish and Wildlife Service (USFWS), and the Georgia Department of Transportation (GDOT) for their files. However, special provisions and/or effects determinations are no longer required for the northern long-eared bat for this project.

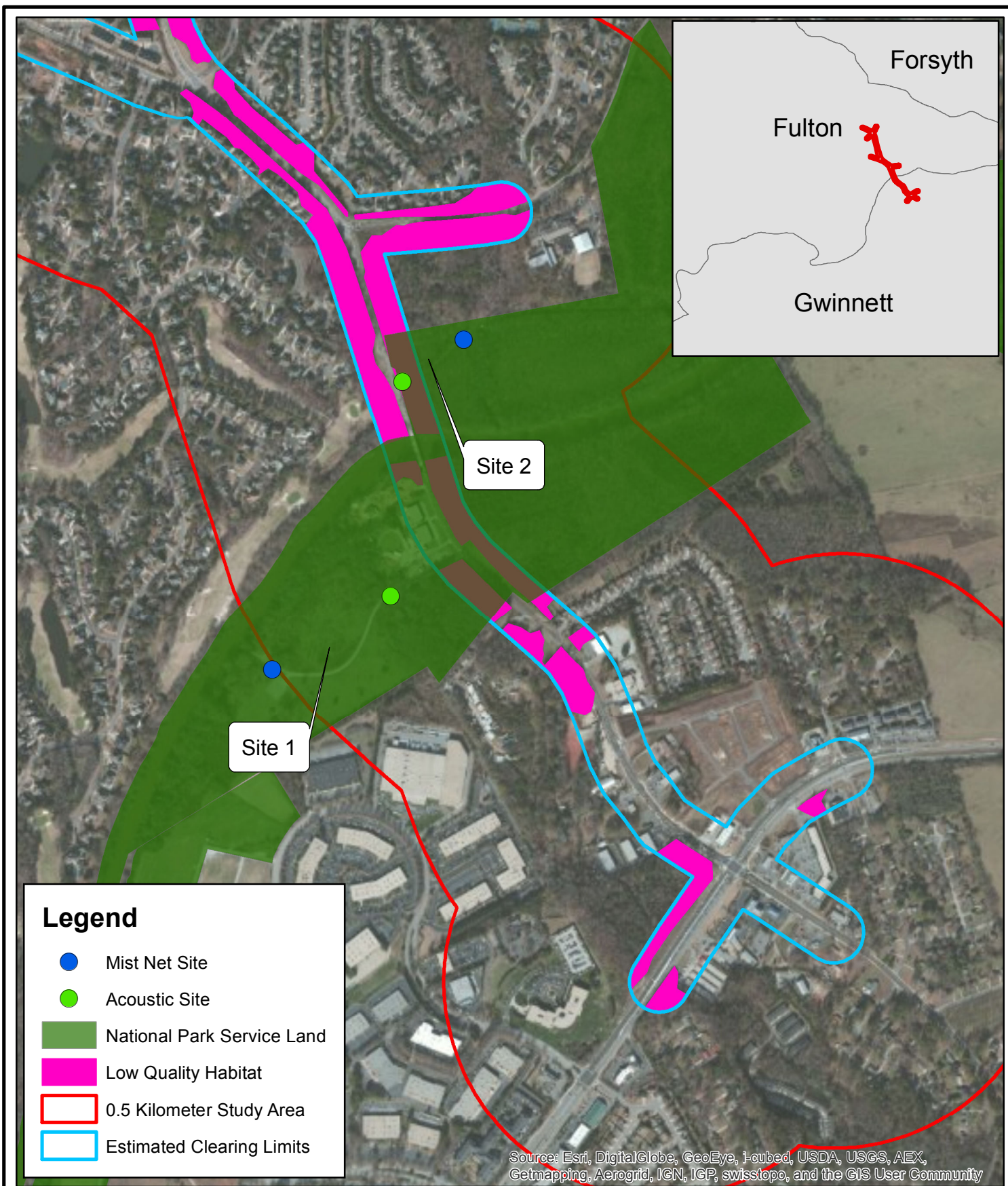
Eco-Tech appreciates the opportunity to incorporate National Park Service lands into this survey effort. Please see attached maps, photographs, and detailed capture information associated with this survey effort. If you have any questions, please feel free to contact me directly using the information below.

Sincerely,

A handwritten signature in black ink, appearing to read 'Laci Coleman', with a stylized, cursive script.

Laci Coleman
Ecologist II
Eco-Tech Consultants
1220 Kennestone Circle Suite 100
Marietta, Georgia 30066
678-496-3742
lcoleman@ecotechinc.com





REPRESENTATIVE PHOTOGRAPHS



Mist Net Site 1; Net A



Mist Net Site 1; Net B



Mist Net Site 1; Anabat Unit



Mist Net Site 2; Net A



Mist Net Site 2; Net B



Mist Net Site 2; Anabat Unit



Big brown bat (*Eptesicus fuscus*)



Eastern red bat (*Lasiurus borealis*)



Tri-colored bat (*Perimyotis subflavus*)

COMPREHENSIVE BAT CAPTURE DATA

Site	Date	Species	Net	Time	Height in Net (m)	Age	Sex	Reproductive Condition	Weight (g)	Forearm (mm)	Wing Scar Score
Site 1	7/16/2014	<i>*Lasiurus borealis</i>	A	21:15	4.0	--	--	--	--	--	--
	7/17/2014	No captures	--	--	--	--	--	--	--	--	--
Site 2	7/16/2014	<i>Lasiurus borealis</i>	A	21:30	2.0	J	M	TD	10.0	44.0	0
		<i>Eptesicus fuscus</i>	A	21:30	3.5	A	F	PL	20.0	47.0	0
		<i>Eptesicus fuscus</i>	B	21:30	1.0	A	F	PL	17.0	45.0	0
		<i>Eptesicus fuscus</i>	B	21:30	3.0	J	F	N	15.0	46.0	0
		<i>Eptesicus fuscus</i>	B	21:30	4.0	A	F	PL	16.5	44.0	0
		<i>Eptesicus fuscus</i>	B	21:30	8.5	A	M	N	15.0	47.0	0-P
		<i>Eptesicus fuscus</i>	B	22:00	1.0	J	F	N	15.0	51.0	1
		<i>Eptesicus fuscus</i>	B	22:00	5.0	J	M	TD	14.0	49.0	0
		<i>Eptesicus fuscus</i>	B	22:00	5.0	A	F	PL	15.0	48.0	1
		<i>Eptesicus fuscus</i>	A	22:00	2.0	J	M	TD	13.5	41.0	0
		<i>Eptesicus fuscus</i>	A	22:00	2.0	A	M	TD	15.0	47.0	0
		<i>Eptesicus fuscus</i>	B	22:00	1.0	A	F	PL	15.5	48.0	0
		<i>Eptesicus fuscus</i>	B	22:00	1.0	A	F	PL	15.0	45.0	0
		<i>Eptesicus fuscus</i>	B	22:00	1.5	J	M	N	14.0	44.0	0
		<i>Eptesicus fuscus</i>	B	22:20	3.0	J	F	N	17.0	48.0	1
		<i>Eptesicus fuscus</i>	B	22:20	3.0	A	F	PL	17.0	46.0	0
		<i>Eptesicus fuscus</i>	A	22:20	3.0	A	F	PL	20.0	44.0	0
		<i>Eptesicus fuscus</i>	B	22:30	5.0	J	F	N	17.0	51.0	1
		<i>Eptesicus fuscus</i>	B	22:30	5.0	A	F	PL	19.0	46.0	0
		<i>Eptesicus fuscus</i>	B	22:30	3.0	J	M	TD	14.5	46.0	0
		<i>Eptesicus fuscus</i>	A	22:40	3.0	A	M	N	16.5	43.0	0
		<i>Eptesicus fuscus</i>	B	22:45	4.0	J	F	N	13.0	51.0	0
		<i>Eptesicus fuscus</i>	A	23:00	3.0	J	M	N	15.0	41.0	0
		<i>Eptesicus fuscus</i>	B	23:00	2.0	A	M	TD	16.0	49.0	0
		<i>Eptesicus fuscus</i>	B	23:00	5.0	A	F	PL	19.0	52.0	1
		<i>Eptesicus fuscus</i>	A	23:00	5.0	J	F	N	15.0	48.0	0

Site	Date	Species	Net	Time	Height in Net (m)	Age	Sex	Reproductive Condition	Weight (g)	Forearm (mm)	Wing Scar Score
		<i>Eptesicus fuscus</i>	B	23:45	4.0	A	M	TD	15.0	47.0	0
		<i>*Lasiurus borealis</i>	B	01:20	8.0	--	--	--	--	--	--
	7/17/2014	<i>Eptesicus fuscus</i>	B	21:50	5.0	J	F	N	15.0	47.0	0
		<i>Eptesicus fuscus</i>	A	22:00	3.0	J	F	N	14.0	49.0	0
		<i>Eptesicus fuscus</i>	B	22:00	5.0	J	M	N	14.0	44.0	0
		<i>Eptesicus fuscus</i>	B	22:00	5.0	A	F	N	16.0	46.0	0
		<i>Eptesicus fuscus</i>	B	22:20	6.0	J	F	N	15.5	47.0	0
		<i>Eptesicus fuscus</i>	B	22:30	3.0	J	M	TD	16.0	46.0	0
		<i>Eptesicus fuscus</i>	B	22:30	2.5	J	F	N	13.5	46.0	0
		<i>Eptesicus fuscus</i>	A	22:55	2.0	A	M	TD	14.0	47.0	0
		<i>Eptesicus fuscus</i>	B	23:30	3.5	A	F	PL	21.0	49.0	0
		<i>*Perimyotis subflavus</i>	A	00:50	2.0	--	--	--	--	--	--

Age: A=adult, J=juvenile; Sex: F=female, M=male; Reproductive Condition: L=lactating, N=non-reproductive, P=pregnant, PL=Post-lactating, TD=Test descended

*Escape