



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801-4850

September 17, 2015

Natalie Shearer
AECOM
Foster Plaza 6
681 Anderson Drive
Suite 400
Pittsburgh, PA 15220

RE: USFWS Project #2015-1047

Dear Ms. Shearer:

Thank you for your letter of August 25, 2015, regarding information about federally listed and proposed endangered and threatened species within the area affected by Shell Pipeline Company, LP, proposed Northeast Pipeline project located in Beaver, Allegheny and Washington Counties, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species, the Migratory Bird Treaty Act (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, as amended), and the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended; 16 U.S.C. 668-668d) to ensure the protection of migratory bird species.

Thank you for meeting with staff in our office on September 9, 2015, to discuss Shell's proposed 90-mile ethane pipeline through Pennsylvania, West Virginia, and Ohio. Approximately 42.8 miles of the pipeline will occur in Pennsylvania.

Federally Listed Species

The proposed project is located within the range of the Indiana bat (*Myotis sodalis*), a species that is federally-listed as endangered and within the range of the federally-threatened northern long-eared bat (*Myotis septentrionalis*).

Indiana bats and northern long-eared bats hibernate in caves and abandoned mines during the winter months (November through March), and use a variety of upland, wetland and riparian habitats during the spring, summer and fall. These bats usually roost in dead or living trees with exfoliating bark, crevices or cavities. Female Indiana and northern long-eared bats form nursery colonies under the exfoliating bark of dead or living trees, such as shagbark hickory, black birch, red oak, white oak, and sugar maple, in upland or riparian areas.

Land-clearing, especially of forested areas, may adversely affect these bat species by killing, injuring or harassing roosting bats, and by removing or reducing the quality of foraging and roosting habitat. Due to the anticipated impacts of the project to forested habitat (approximately 227 acre in PA), a bat survey of the project area should be conducted between May 15 and August 15 by a qualified, Service-approved biologist (see enclosed list) using the *2015 RANGE-WIDE INDIANA BAT SUMMER SURVEY GUIDELINES April 2015*, which can be found at the following link: <http://www.fws.gov/northeast/pafo/surveys.html> . Survey results should be submitted to the Service for review and concurrence.

In addition, if any natural caves or abandoned mines occur within the project area, it is possible that bats may be using them during hibernation or potentially as summer roost sites. Entrances to these potential hibernacula could be intentionally or inadvertently closed or destroyed during activities such as land clearing, grading, fill disposal, mining, road construction or building construction. If bats are present within a cave or abandoned mine when this occurs, they will become trapped inside and perish. Even if bats are not present during the closure, they may be adversely affected when they return to their hibernaculum in the fall and find it closed. This will force them to expend energy looking for another suitable hibernaculum during a time when it is crucial that they store up sufficient fat reserves for hibernation. Bats are at an increased risk of mortality when they enter hibernation with insufficient fat reserves, or are unable to locate a cave/mine with the suite of conditions (*e.g.*, temperature, humidity, air flow) necessary for successful hibernation.

To determine whether this project will affect any potential Indiana bat or northern long-eared bat hibernacula, the project area should be surveyed for cave and mine openings. All openings should be accurately mapped using a GPS unit. If potentially unstable mines (*e.g.*, abandoned coal mines) occur in the project area, the openings of these mines should be evaluated using the enclosed *PROTOCOL FOR ASSESSING BAT USE OF POTENTIAL HIBERNACULA*. The Pennsylvania Game Commission has developed this protocol to determine whether abandoned mines may serve as potentially suitable bat habitat. Following this initial mine opening assessment, a qualified bat surveyor (see enclosed list) should survey each potentially suitable opening, as well as the area in the immediate vicinity of these openings. Surveys should be carried out in accordance with the enclosed survey protocol and a copy of the survey results should be submitted to the Service and the Pennsylvania Game Commission for review and concurrence.

If any caves or stable hard rock mines (*e.g.*, limestone mines) occur in the project area, they should be surveyed for hibernating bats during the winter. Interior winter hibernacula surveys should be coordinated with the Pennsylvania Game Commission. Survey results should be submitted to the Service for review and concurrence. If caves or hard rock mines cannot be safely entered, their openings should be surveyed as described above.

Prior to conducting any survey, however, the Pennsylvania Game Commission should be contacted to determine whether or not they have surveyed the cave/mine in the past. If adequate surveys have been conducted in the recent past, this may preclude the need to conduct additional surveys.

Should Indiana bats or northern long-eared bats be found during any survey, further consultation with the Service will be necessary, including the submission of detailed project plans, and an analysis of alternatives to avoid and minimize adverse effects.

Finally, the pipeline lies within 5 miles of 2 known northern long-eared bat hibernacula. Points that the pipeline enter and exit the 5-mile hibernacula buffer are at approximately 40.402714 -80.285512 and 40.393813 -80.286139. Any project area that lies west of these points is within the 5-mile buffer. The company should consider these areas to be used by the northern long-eared bat during spring staging and fall swarming and implement conservation measures (such as a time of year restriction on tree clearing) to reduce the likelihood of take.

Mussels

The Ohio River is within the range of four federally listed, endangered mussel species, the northern riffleshell (*Epioblasma torulosa rangiana*), the clubshell (*Pleurobema clava*), the rayed bean (*Villosa fabalis*), and the snuffbox (*Epioblasma triquetra*); and is also inhabited by the rabbitsfoot (*Quadrula cylindrica cylindrica*), a mussel species that is federally listed as threatened.

Based on our discussions, you will not be directly impacting the Ohio River and are proposing to horizontal directional drill under Raccoon Creek, a tributary to the Ohio River. This drill will occur approximately 1 mile upstream of the creek's confluence with the Ohio River.

Therefore, based on a review of the project information, we have determined that the effects of the project are not likely to adversely affect these mussel species.

Assessment of Risks to Migratory Birds

The Service is the principal Federal agency charged with protecting and enhancing populations and habitat of migratory bird species. The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for authorizing incidental take, the Service recognizes that some birds may be killed even if all reasonable measures to avoid take are implemented.

The potential exists for avian mortality from habitat destruction and alteration associated with vegetation clearing and fragmentation within the project boundaries. Resources are available to assist you in determining which species are likely to be present within your project area (see attached enclosure) to determine appropriate conservation measures to reduce impacts to migratory birds. Site-specific factors that should be considered in project siting to avoid and minimize the risk to birds include avian abundance; the quality, quantity and type of habitat; geographic location; type and extent of bird use (e.g. breeding, foraging, migrating, etc.); and landscape features. Please review the enclosed information for general recommendations for avoiding and minimizing impacts to migratory birds within and around the project area. Be aware that since these are general guidelines, some of them may not be applicable or may have already been included in the project design.

Your project is located in the vicinity of the Important Bird Area (IBA) known as Raccoon Creek Valley and State Park. IBAs are designated by the Pennsylvania Ornithological Technical Committee. They are the most critical regions in the Commonwealth for conserving bird diversity and abundance, and are the primary focus of Audubon Pennsylvania's conservation efforts. To find out more information about this IBA, including which bird species breed there, visit: <http://netapp.audubon.org/IBA/State/US-PA>

In addition to protection under the MBTA, bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act protects eagles by prohibiting killing, selling, disturbing, or otherwise harming eagles, their nests or eggs. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

Bald eagles (*Haliaeetus leucocephalus*) are known to nest in the vicinity of the project area, with one being located within a half mile of the project site (at approximately 40.651054 - 80.359981). Consequently, we recommend that you evaluate the project type, size, location and layout in light of the National Bald Eagle Management Guidelines to determine whether or not bald eagles might be disturbed as a direct or indirect result of this project. If it appears that disturbance may occur, we recommend that you consider modifying your project consistent with the Guidelines. These guidelines, as well as additional eagle information, are available at <http://www.fws.gov/northeast/EcologicalServices/eagle.html>. To assist you in making a decision regarding impacts to bald eagles, a screening form can be found at http://www.fws.gov/northeast/pafo/bald_eagle.html.

If you have additional questions regarding eagle permits, please contact Scott Frickey, Migratory Bird Program, at Scott_Frickey@fws.gov or (413) 253-8592.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

If you have any questions regarding this matter, please contact Pamela Shellenberger of my staff at 814-234-4090.

Sincerely,



Lora L. Zimmerman
Field Office Supervisor

cc:

USFWS (OH) – Everson
USFWS (WV) – Schmidt

Adaptive Management Practices for Conserving Migratory Birds

The Fish and Wildlife Service is the principal Federal agency charged with protecting and enhancing populations and habitat of migratory bird species. The Migratory Bird Treaty Act (MBTA, 16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, as amended) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for authorizing incidental take, the Service recognizes that some birds may be killed even if all reasonable measures to avoid take are implemented. Unless the take is authorized, it is not possible to absolve individuals, companies or agencies from liability (even if they implement avian mortality avoidance or similar conservation measures). However, the Office of Law Enforcement focuses on those individuals, companies, or agencies that take migratory birds with disregard for their actions and the law.

The potential exists for avian mortality from habitat destruction and alteration within the project boundaries. Site-specific factors that should be considered in project siting to avoid and minimize the risk to birds include avian abundance; the quality, quantity and type of habitat; geographic location; type and extent of bird use (*e.g.* breeding, foraging, migrating, etc.); and landscape features.

We offer the following recommendations to avoid and minimize impacts to migratory birds within and around the project area:

1. Where disturbance is necessary, clear natural or semi-natural habitats (*e.g.*, forests, woodlots, reverting fields, shrubby areas) and perform maintenance activities (*e.g.*, mowing) between September 1 and March 31, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid take of most breeding birds, their nests, and their young (*i.e.*, eggs, hatchlings, fledglings).
2. Minimize land and vegetation disturbance during project design and construction. To reduce habitat fragmentation, co-locate roads, fences, lay down areas, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (*e.g.*, existing roads, pipelines, agricultural fields) and cluster development features (*e.g.*, buildings, roads) as opposed to distributing them throughout land parcels. Where this is not possible, minimize roads, fences, and other infrastructure.
3. Avoid permanent habitat alterations in areas where birds are highly concentrated. Examples of high concentration areas for birds are wetlands, State or Federal refuges, Audubon Important Bird Areas, private duck clubs, staging areas, rookeries, leks, roosts, and riparian areas. Avoid establishing sizable structures along known bird migration pathways or known daily movement flyways (*e.g.*, between roosting and feeding areas).
4. To conserve area-sensitive species, avoid fragmenting large, contiguous tracts of wildlife habitat, especially if habitat cannot be fully restored after construction. Maintain

contiguous habitat corridors to facilitate wildlife dispersal. Where practicable, concentrate construction activities, infrastructure, and man-made structures (*e.g.*, buildings, cell towers, roads, parking lots) on lands already altered or cultivated, and away from areas of intact and healthy native habitats. If not feasible, select fragmented or degraded habitats over relatively intact areas.

5. Develop a habitat restoration plan for the proposed site that avoids or minimizes negative impacts to birds, and that creates functional habitat for a variety of bird species. Use only plant species that are native to the local area for revegetation of the project area.

If you have any questions regarding these measures, please contact Lora Zimmerman of the Pennsylvania Field Office located in State College, PA at 814-234-4090.

COMMONWEALTH OF PENNSYLVANIA
Pennsylvania Game Commission, Bureau of Law Enforcement, Technical Services Division
2001 Elmerton Avenue, Harrisburg, PA 17110-9797

Procedure and format for permittee reports to the PA Game Commission when conducting bat capture surveys within the Commonwealth.

The report is divided into five sections which include: (1) Cover page, (2) Site Survey Record, (3) Bat Measurement and Capture Data Forms, (4) Maps and (5) Photo Documentation.

Section 1 - Cover

A separate cover page should be provided for each project with the accompanying data of Sections 2 through 5 contained within. An example is provided.

Section 2 - Bat Netting/Trapping Site Survey Record

(FORM P-70008-NT)

This is a **mandatory** two-page summary of site(s) surveyed and of captures. It should be completed for all sites surveyed, including those with no captures. If a capture technique other than mist netting or harp trapping is used, it should be described in remarks. Complete 1 for each site survey night (If site is trapped twice, 2 site survey records are required, etc.).

This form may not be modified for reporting because it is used for data entry. If necessary, supplemental pages may be added to report unique data.

Section 3 - Bat Measurement and Capture Data Form

(FORM P-70008-M)

This form is **mandatory** for:

1. *Myotis sodalis* captures
2. *Myotis leibii* captures
3. Bats you are banding and all band recaptures
4. All radio-tagged bats (describe transmitter in remarks)
5. Bat species not usually found in Pennsylvania*.

* Pennsylvania species: *Myotis lucifugus*, *Myotis septentrionalis*, *Myotis leibii*, *Myotis sodalis*, *Eptesicus fuscus*, *Pipistrellus subflavus*, *Lasiurus borealis*, *Lasiurus cinereus*, and *Lasionycteris noctivagans*

This form may not be modified for reporting because it is used for data entry.

The surveyor also has the option to use this form for measuring and reporting all bats. All measurements should follow North American collector standards (Nagorsen, D. W. and R. L. Peterson. 1980. Measurements and Weights. Pp. 22-26 in Mammal Collectors' Manual. Royal Ontario Museum, Publications in Life Sciences). Banded bat information will be maintained in a database and future recaptures of your bands will be reported to you.

Section 4 - Maps

An example is provided. All survey sites will be reported on a map (preferably a 7.5' USGS Topographic Map) so that locations can be accurately located and coordinates verified.

Section 5 - Photo Documentation

An example is provided. It is strongly encouraged that photographs be taken of identification characteristics of all *M.sodalis*, *M.leibii*, and species not usually found in PA. The photos should be labeled with the site, date and capture number.

Return reports to address on the heading of this page within 90 days of project completion.

COMMONWEALTH OF PENNSYLVANIA
Pennsylvania Game Commission
Bureau of Law Enforcement, Technical Services Division
2001 Elmerton Avenue, Harrisburg, PA 17110-9797

Section 1 - Cover

PERMITTEE BAT CAPTURE REPORT

Permit Number _____

Project Name: _____

Company/
Organization/
Permittee Name: _____

Address: _____

Phone: (____) _____ - _____ Fax: (____) _____ - _____

E-Mail: _____

Project Supervisor Name: _____

Supervisor Contact: Phone: (____) _____ - _____

E-Mail: _____

If this is contracted work, provide the name & address of the individual/organization work is being performed for:

BAT NETTING/TRAPPING SITE SURVEY RECORD

1. Survey Date: _____ 2. Company Name: _____

3. Reporter: _____ 4. Assistants: _____

5. Site Name and/or Number: _____

6. Site is (circle one): hibernation site summer habitat

7a. If hibernation site circle one: limestone mine, coal mine, limestone cave, sandstone cave, RR tunnel,
other structure, describe - _____.

7b. If summer habitat, describe area being sampled (e.g. forested stream or forest clearing with stream):

8. County: _____ 9. 7.5' Quad.: _____

10. Was site GPS'd (required) ? YES - NO

11. Geographic Coordinates (D-M-S): Latitude: _____ ° - _____ ' - _____ "N, Longitude: _____ ° - _____ ' - _____ "W

Datum (circle one): NAD27 (Preferred), NAD83, WGS84, Other: _____

12. Ownership and Access: (Who owns site or controls access? Give name and address.) _____

13. Time (military) & Temperature: Start Time _____ h Stop Time _____ h Total Minutes: _____
Start Temp. _____ °C End Temp. _____ °C

14. General Weather (circle one): Clear; Partly Cloudy; Mostly Cloudy; Cloudy; Drizzle; Intermittent Rain;
Steady Rain; Thunderstorms; Snow; Other: _____.

15. General Wind Conditions (circle one): Calm, Breezy (Leaves Rustling), Windy (trees swaying).

16. Capture Setup at Site:

Set #	Type	Count	Dimensions	Description	TOTAL AREA (m)
1	Nets	4	12m x 2.6m	Stacked over trail	124.8 sq. m

Total Capture Area: _____ sq. m

(Site Survey Record – Continued) Site Name/No.: _____ Date: _____

17. Describe habitat 150 m around site: (topography and vegetation including dominant tree species.)

18. Was reproductive status checked? YES / NO (if “NO” only enter numbers in **Total** columns)

***CAPTURE RESULTS**

Species	Number of Adult Females				No. Juv. Fem.	Total No. Fem.	Number of Adult Males		No. Juv. Male	Total No. Males	Species Totals
	NR	PG	L	PL			SCR	NR			
<i>Eptesicus fuscus</i>	2		1			3	2	1	1	4	7
<i>Myotis lucifugus</i>											
<i>Myotis septentrionalis</i>											
<i>Myotis leibii</i>											
<i>Myotis sodalis</i>											
<i>Eptesicus fuscus</i>											
<i>Pipistrellus subflavus</i>											
<i>Lasiurus borealis</i>											
<i>Lasiurus cinereus</i>											
<i>Lasionycteris noctivagans</i>											
Other – specify:											
Other – specify:											
Reproductive Status: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen. *Complete Measurement and Capture Data Form for all: (1) <i>Myotis sodalis</i> , (2) <i>Myotis leibii</i> , (3) bats you are banding or band recaptures, (4) radio-tagged bats and (5) bat species not usually found in PA.											Grand Total

19. BAT DETECTORS & OTHER MONITORING DEVICES: Tallies of bat passes / hour. One to 5 hours required for Indiana bat hibernacula surveys. Monitor one hour after 22:00 hrs when trapping/netting hibernacula and 5 hours when only monitoring with bat detectors, night vision or infrared device (when site can not be trapped/netted). Describe procedure & equipment used in remarks.

1 st hour	2 nd hour	3 rd hour	4 th hour	5 th hour
Start Time:	Start Time:	Start Time:	Start Time:	Start Time:
End Time:	End Time:	End Time:	End Time:	End Time:
Tallies:	Tallies:	Tallies:	Tallies:	Tallies:

20. REMARKS:

Bat Measurement and Capture Data Form

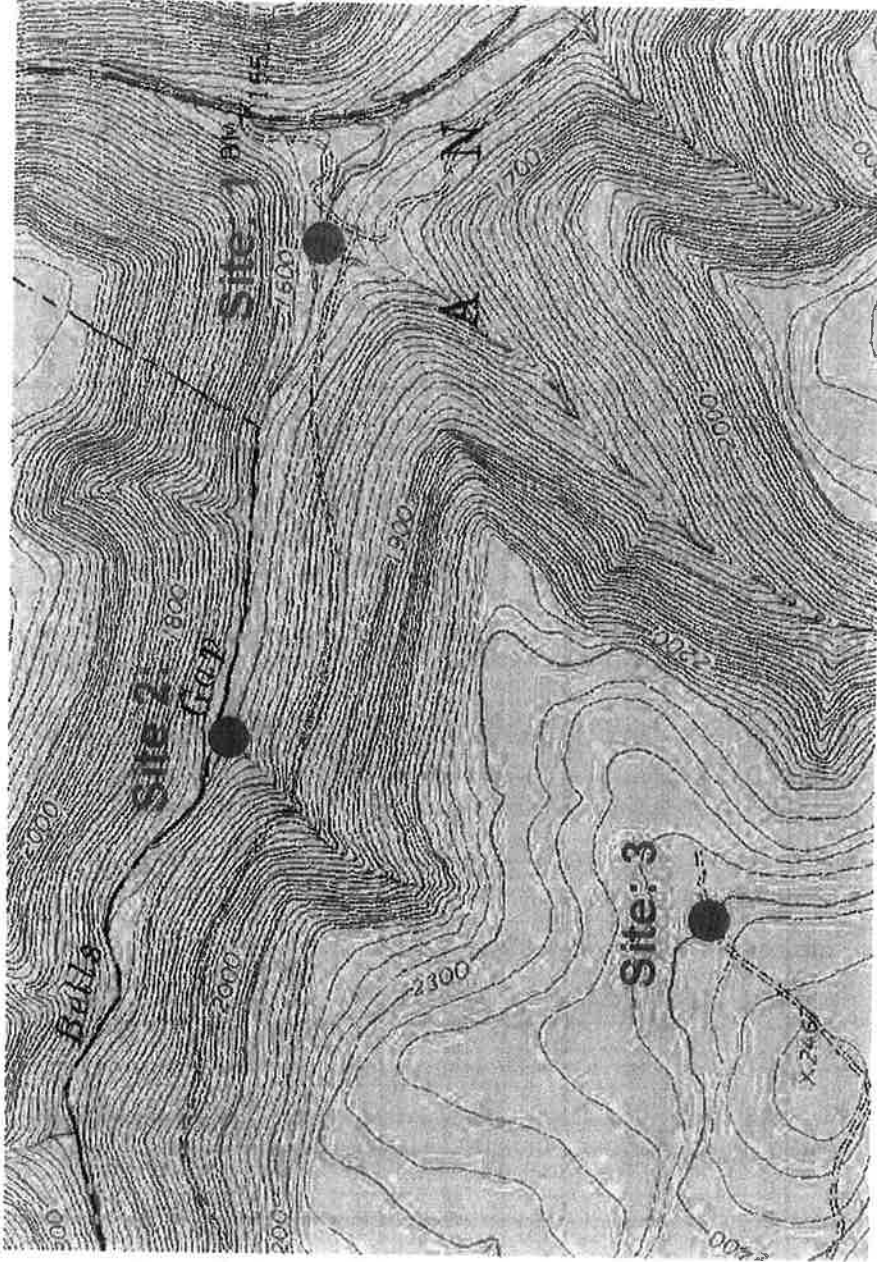
(Complete for all (1) *Myotis sodalis*, (2) *Myotis leibii*, (3) bats you are banding or band recaptures, (4) radio-tagged bats and (5) bat species not usually found in PA)

Site Name Or Number:		Date:		Set No. Captured In:		Name of Person Identifying the Bat:		*Capture Number:	
Height in meters captured above ground surface:		m		Repro. Condition		Wt. (g)		Transmitter Attached? If so: Frequency (mHz)	
Species	Sex	Age	Photo Taken Yes / No	Fore- arm	Hind Foot	Tragus	Ear	Recapture Yes/No	Band Information (if banded) (Band Males on bat's RIGHT fa., Females on bat's LEFT fa.) Band Material Color Band Inscription Band on Left/Right
Time of Capture Remarks:									
<i>Repro. Condition: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen</i>									
Site Name Or Number:		Date:		Set No. Captured In:		Name of Person Identifying the Bat:		*Capture Number:	
Height in meters captured above ground surface:		m		Repro. Condition		Wt. (g)		Transmitter Attached? If so: Frequency (mHz)	
Species	Sex	Age	Photo Taken Yes / No	Fore- arm	Hind Foot	Tragus	Ear	Recapture Yes/No	Band Information (if banded) (Band Males on bat's RIGHT fa., Females on bat's LEFT fa.) Band Material Color Band Inscription Band on Left/Right
Time of Capture Remarks:									
<i>Repro. Condition: NR= nonreproductive, PG= pregnant, L= lactating, PL= post lactating, SCR= scrotal/epididymis swollen</i>									
Site Name Or Number:		Date:		Set No. Captured In:		Name of Person Identifying the Bat:		*Capture Number:	
Height in meters captured above ground surface:		m		Repro. Condition		Wt. (g)		Transmitter Attached? If so: Frequency (mHz)	
Species	Sex	Age	Photo Taken Yes / No	Fore- arm	Hind Foot	Tragus	Ear	Recapture Yes/No	Band Information (if banded) (Band Males on bat's RIGHT fa., Females on bat's LEFT fa.) Band Material Color Band Inscription Band on Left/Right
Time of Capture Remarks:									

*Capture Number = number in sequence by site.

Section 4 - Maps (example)

Blair Co., Blandburg Quadrangle, Bells Gap Area.
Location of Sites 1, 2, and 3 for Project PA-24



Section 5 - Photos (example)

Male *Myotis sodalis* captured at Site 1

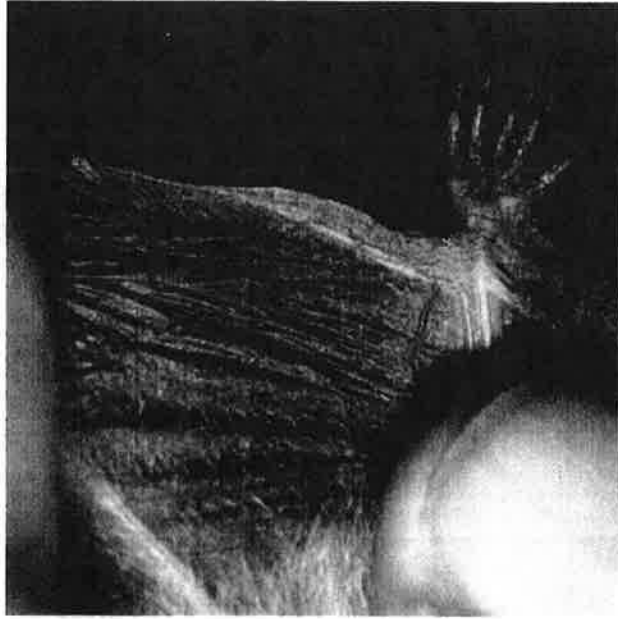
Capture date: 7/18/01

Capture Number: 06

Portrait



Keel'd Calcar



U.S. FISH AND WILDLIFE SERVICE
Pennsylvania Field Office

QUALIFIED BAT SURVEYORS

The following list includes persons known by the U.S. Fish and Wildlife Service to have the skills and experience to conduct surveys for Indiana bats. Any individuals handling or conducting surveys for state or federally listed bats must first obtain a permit from the Pennsylvania Game Commission. All state and federally listed bat captures must be reported in writing to the Service and Commission within 72 hours. Bat surveys will be overseen by a qualified surveyor, who will be present in the field at all times during the investigation. Summer surveys should be carried out in accordance with the Service's most recent summer survey guidance. If any state or federally listed bats are captured during summer surveys, a surveyor with bat telemetry experience should be prepared to place a transmitter on the bat(s) to identify roost trees and foraging habitat. Various sampling and survey techniques, including mist-netting, radio-telemetry, harp-trapping, acoustic surveys and hibernacula surveys, are used to detect and monitor bats. Some individuals on this list may not be qualified to conduct all types of sampling.

This information is not to be construed as an endorsement of individuals or firms by the Service or any of its employees. Persons not on this list, but who have documented experience in conducting scientific studies of, or successful searches for, Pennsylvania State or federally listed bats may submit their qualifications to the Service for review. The submission must include documentation that the requestor has experience successfully locating and identifying state or federally listed bats in their hibernacula and their summer habitat. Additions to and deletions from this list are at the sole discretion of the Service. This list is subject to revision at any time without prior notice.

Chris Sanders, Matt Hopkins,
Chelsea Rider, Keith Christenson,
Amanda Brumbaugh, Jason Collins, Elise
Merrill, Aaron Covalt, & Sarah Dewees.
Sanders Environmental, Inc.
322 Borealis Way
Bellefonte, PA 16823
814-659-8257 (c)
sanders@batgate.com

John Chenger, Janet Tyburec, Aimee
Haskew, Kevin Rhome, Todd Sinander &
Risa Wright
Bat Conservation & Management
220 Old Stone House Road
Carlisle, PA 17015
717-241-2228
814-442-4246 (c)
jchenger@batmanagement.com

Jessica Hickey-Miller & Michelle
Malcosky
Davey Resource Group
1500 North Mantua Street
P.O. Box 5193
Kent, OH 44240-5193
330-673-5685
jessica.miller@davey.com
mmalcosky@gmail.com

James A. Hart
Wildlife Specialists, LLC
Wellsboro Office
2785 Hills Creek Rd.
Wellsboro, PA 16901
570-376-2255
570-439-8590 (Jim's cell)
jahart@pa.net
steve@wildlife-specialists.com

Virgil Brack, Jr., Dale Sparks, David
Jeffcott, Darwin Brack, Justin
Wilson, Jacques Veilleux,
Christopher Boggs, Shane
Brodnick, L. Michelle Gilley, Justin
Boyles, Jason Damm, Daniel Judy
& Nicholas Gikas
Environmental Solutions &
Innovations
4525 Este Avenue
Cincinnati, OH 45232
513-451-1777
vbrack@environmentalsi.com

Michael S. Fishman
Barton & Loguidice, P.C.
290 Elwood Davis Road
Box 3107
Syracuse, NY 13220
315-457-5200 ext. 1213
315-456-9910 (c)
mfishman@bartonandloguidice.com

Dr. Michael Gannon
Department of Biology
Penn State University
Altoona College
3000 Ivyside Park
Altoona, PA 16601-3760
814-949-5210
mrg5@psu.edu

James Kiser & Jeffrey Brown
Stantec Consulting Ltd.
10509 Timberwood Circle
Suite 100
Louisville, Kentucky 40223
502-396-3199
606-434-9018
james.kiser@stantec.com

Ryan Leiberher
Senior Environmental Biologist
URS Corporation
4507 North Front Street
Suite 200
Harrisburg, PA 17110
717-635-7901
ryan_leiberher@urscorp.com

Bryon DuBois
DuBois Environmental Consultants, LLC
1058 Prospect Avenue
Manahawkin, NJ 08050
609-488-2857
609-713-7097 (c)
bdubois@denviro.com

Katie M. Day
Ecology and Environment, Inc.
33 West Monroe Street
Suite 550
Chicago, IL 60603
586-260-2466
kmd1930@gmail.com

Dr. Lynn Robbins
Missouri State University
Biology Department
901 South National
Springfield, MO 65804
417-836-5366
lynnrobbins@missouristate.edu

Michael R. Schirmacher
Bat Conservation International
PO Box 162603
Austin, TX, 78716-2603
843-408-1695
mschirmacher@batcon.org

D. Scott Reynolds, Ph.D.
North East Ecological Services
P.O. Box 3596
Concord, NH 03302
603-545-7012
sreynolds@sps.edu

Tim Divoll
BioDiversity Research Institute
652 Main St.
Gorham, ME 04038
207-887-7160 ext. 244
508-662-2274 (c)
Tim.divoll@briloon.org

Jeremy Jackson, Kat A. Cunningham &
J.D. Wilhide
Jackson Group
1586 Boonesborough Road
Richmond, Kentucky 40475
859-623-0499
jjj@jacksonenvironmental.com
kcunningham@jacksongroupco.com
jwilhide@jacksongroupco.com

Kristen Watrous
Stantec
55 Green Mountain Drive
South Burlington, VT 05403
802-383-0425
802-578-7161 (c)
kristen.watrous@stantec.com

Keith Johnson & Dr. Thomas Risch
Mountain State Biosurveys, LLC
6703 Ohio River Rd
Lesage, WV 25537
304-762-2453
304-544-5404 (c)
kjohnson@mtnstatebio.com

Joe Duchamp
Department of Biology
Indiana University of Pennsylvania
724-357-1299
jduchamp@iup.edu

Julie Zeyzus
P.O. Box 314
Fayetteville, PA 17222
724-387-8201
jzeyzus@gmail.com

Lee Droppelman & Scott Slankard
Eco-Tech Consultants, Inc.
931 East Main Street
Frankfort, KY 40601
502-695-8060
ldroppelman@ecotechinc.com

Ryan Slack, Jack Basiger, Mary Gilmore,
Craig Rockey, Cory Murphy & Jody
Nicholson
Civil and Environmental Consultants, Inc.
530 E. Ohio Street, Suite G
Indianapolis, IN 46204
317-655-7777
513-237-5051 (c)
rslack@cecinc.com
jbasiger@cecinc.com

Stacy J. Wolbert
35 Hollow Lane
Lucinda, PA 16235
814-360-1290
stacy_wolbert@yahoo.com

Melanie L. Gregory
SWCA Environmental Consultants
4407 Monterey Oaks Blvd.
Building 1, Suite 110
Austin, Texas 78749
512-476-0891 ext. 1834
513-348-7833 (c)
mgregory@swca.com

John Timpone
HDR One Company
427 Terrington Drive
St. Louis, MO 63021
520-584-3634
520-308-8947 (c)
john.timpone@hdrinc.com

Dr. Karen Campbell
Biology Department
Albright College
Reading, PA 19614
610-921-2381
kcampbell@alb.edu

Michael O'Mahony
Normandeau Associates
400 Old Reading Pike
Building A, Suite 101
Stowe, PA 19464
610-705-5733
momahony@normandeau.com

Amanda Janicki
2802 Knob Creek Lane
Knoxville, TN 37912
585-730-9751
ajanicki@utk.edu

Daniel R. Cox
616 South Illinois St.
Streator, IL 61364
859-351-3919 (c)
dancox79@gmail.com

Bradley Steffen
TRC Environmental
11231 Cornell Park Drive
Cincinnati, OH 45242
513-489-2255 ext. 1045
513-309-6453
BSteffen@trcsolutions.com

Dustin Meattley & Dave Yates
Biodiversity Research Institute
19 Flagg Meadow Rd.
Gorham, ME 04038
207-839-7600 ext. 112
207-650-8903 (c) Dustin
207-491-4704 (c) Dave
dustin.meattley@briloon.org
dave.yates@briloon.org

Cynthia Hauser
1927 Halfmoon Valley Rd.
Port Matilda, PA 16870
814-644-1718
cindy.hauser@gmail.com

Michael Cooper, Al Hicks, Michael
Clark & Ryan von Linden
Vesper Environmental LLC
925 Glasco Turnpike
Saugerties, NY 12477
845-594-5373
mcooper@vesperenvironmental.com

Neil Bossart
Pittsburgh Wildlife &
Environmental
853 Beagle Club Road
McDonald, PA 15057
724-796-5137
717-860-7679 (c)
nbossart@windstream.net

Steve Pernick
Skelly and Loy, Inc.
3280 William Pitt Way
Pittsburgh, PA 15238
412-828-1412
412-463-2149 (c)
spernick@skellyloy.com

Beth Meyer
8848 Boones Chapel Road
Boones Mill, VA 24065
540-798-2366
bnmeyer09@gmail.com

Lindsey Wight
Stantec
30 Park Drive
Topsham, ME 04086
802-922-0544 (c)
lindsey.wight@stantec.com

Mark Gumbert, Price Sewell,
Chris Leftwich, Jeff Schwierjohann, Jeff
Hawkins, Piper Roby, Josh Adams, Dan
Dourson, Steve Samoray, Theresa
Wetzel, Gregg Shirk, Kelsey R. Pearman,
Lois K. Baer & Zachary Baer
Copperhead Environmental Consulting,
Inc.
11641 Richmond Rd.
P.O. Box 73
Paint Lick, KY 40461
859.925.9012 - Office
859-339-9410 (c)
www.copperheadconsulting.com

Justin Zoladz, Biologist
Ecology and Environment, Inc.
368 Pleasant View Drive Lancaster, NY
14086
716-684-8060 x2608
716-560-4585 (c)
jzoladz@ene.com

Jonathan Hootman, Joel Beverly, Larisa
Bishop-Boros, Robert Oney, Jordan
Stephens, Shane Roberts, Dylan Brooks
& Jay Deatherage
Apogee Environmental &
Archaeological, Inc.
209 Main Street
Whitesburg, KY 41858
606-633-7677
jonathan@apogee-environmental.com

Erin Basiger
Indiana DNR
Division of Fish and Wildlife
3738 East County Road 700
South, Cloverdale, IN 46120
(937) 403-6611
ebasiger@dnr.in.gov

Jack Wallace
Allstar Ecology, LLC
1582 Meadowdale Road
Fairmont, WV 26554
304-816-3490
jack@allstarecology.com

Braden Hoffman
Alliance Consulting, Inc.
Raleigh County Airport Industrial
Park 124 Philpott Lane
Beaver, WV 25813-9502
304-255-0491
hgreen@aci-wv.com

Josh Flinn
Ecology and Environment, Inc.
9300 West 110th Street, Suite
645 Overland Park, KS 66210
913-339-9519 Ext: 4153
913-205-5759 (c)
jflinn@ene.com

Adam Mann & Jason Duffey
GAI Consultants, Inc.
Greater Cincinnati Office
1830 Airport Exchange Blvd, Suite
220
Erlanger, KY 41018
Headquarters / Pittsburgh Office
385 East Waterfront Drive
Homestead, PA 15120
859-647-6647 ext. 4202
859-444-7734 (c)
A.Mann@gaiconsultants.com

Drew Wanke
Wildlife Specialists, LLC
2785 Hills Creek Road
Wellsboro, PA 16901
570-376-2255
518-569-9999 (c)
Drew@wildlife-specialists.com

Dallas Scott Settle
Alliance Consulting, Inc.
70 Abigail Lane
Fayetteville, WV 25840
304-575-2015
hgreen@aci-wv.com