



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850



November 7, 2008

EI-16267
KB

Jo Carole Dawkins
Dawkins Environmental Consulting
P.O. Box 845
Springville, Alabama 35146

RE: USFWS Project #2009-0228

Dear Ms. Dawkins:

This responds to your letter of August 22, 2008, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed Vaughan Railroad Co. railway to a new coal mine located in Greene County, Pennsylvania and Monongalia County, West Virginia. 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, and are to be considered in addition to the September 24, 2008, comments submitted by our West Virginia Field Office.

The project area in Pennsylvania is within the range of the federally listed, endangered Indiana bat (*Myotis sodalis*). Indiana 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. Indiana bats usually roost in dead or living trees with exfoliating bark, crevices or cavities, especially those with sun exposure to the trunk. Female Indiana 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. There is a known maternity colony in Greene County.

Land-clearing, especially of forested areas, may adversely affect Indiana bats 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, a bat survey of the project area should be conducted between May 15 and August 15 by a qualified, Fish and Wildlife Service-approved biologist (see enclosed list) using the enclosed *Indiana Bat Mist Netting Guidelines*.

Within each one-km interval of the proposed railroad right-of-way and its associated roads and construction areas, establish a mist-net site in the best habitat available that can be netted. If any Indiana bats are captured, track the bats using radio-telemetry to identify roosting and foraging areas. This information will assist the railroad company in completing its analysis of the effects of the project on Indiana bats. Prior to undertaking this survey, please provide a study

plan/protocol this office for review. Following completion of the survey, results should also be submitted to us for review and concurrence.

Should Indiana bats be found during the 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.

This response relates only to endangered or threatened species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

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,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore
Supervisor

Enclosures

Federally Listed, Proposed, and Candidate Species in Pennsylvania

(revised July 14, 2008)

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status¹</u>	<u>Distribution (Counties and/or Watersheds)</u>
MAMMALS			
Indiana bat	<i>Myotis sodalis</i>	E	<u>Hibernacula</u> : Armstrong, Beaver, Blair, Centre, Fayette, Huntingdon, Lawrence, Luzerne, Mifflin and Somerset Co. <u>Maternity sites</u> : Adams, Bedford, Berks, Blair, Greene, and York Counties. Potential winter habitat state-wide in caves or abandoned mines. Potential summer habitat state-wide in forests or wooded areas.
BIRDS			
Piping plover	<i>Charadrius melodus</i>	E	Designated critical habitat on Presque Isle (Erie Co.). Migratory. No nesting in PA since 1950s, but recent colonization attempts at Presque Isle
REPTILES			
Bog turtle	<i>Clemmys (Glyptemys) muhlenbergii</i>	T	Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York Co. <i>Historically found in Crawford, Mercer and Philadelphia Co.</i>
Eastern massasauga rattlesnake	<i>Sistrurus catenatus catenatus</i>	C	Butler, Crawford, Mercer and Venango Co. <i>Historically found in Allegheny and Lawrence Co.</i>
MUSSELS			
Clubshell	<i>Pleurobema clava</i>	E	French Creek and Allegheny River (and some tributaries) in Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co.; Shenango River (Mercer and Crawford Co.) <i>Has not been found recently in 13 streams of historical occurrence in Butler, Beaver, Fayette, Greene, Indiana, Lawrence, and Westmoreland Co.</i>
Dwarf wedgemussel	<i>Alasmodonta heterodon</i>	E	Delaware River (Pike and Wayne Co.). <i>Has not been found recently in streams of historical occurrence in the Delaware River watershed (Bucks, Carbon, Chester, Philadelphia Co.) or Susquehanna River watershed (Lancaster Co.)</i>
Northern riffleshell	<i>Epioblasma torulosa rangiana</i>	E	French Creek and Allegheny River (and some tributaries) in Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co. <i>Has not been found recently in streams of historical occurrence, including: Shenango River (Lawrence Co.), Conewango Creek (Warren Co.)</i>

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status¹</u>	<u>Distribution (Counties and/or Watersheds)</u>
MUSSELS (continued)			
Rayed bean	<i>Villosa fabalis</i>	C	French Creek and Allegheny River (Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, Warren Co.); Cussewago Creek (Crawford Co.). <i>Has not been found recently in 5 streams of historical occurrence in Armstrong, Lawrence, Mercer and Warren Co.</i>
Sheepnose	<i>Plethobasus cyphus</i>	C	Allegheny River (Forest and Venango Co.). <i>Has not been found recently in streams of historical occurrence, including: Allegheny River (Armstrong Co.), Beaver River (Lawrence Co.), Ohio River (Allegheny and Beaver Co.), and Monongahela River (Washington Co.)</i>
FISH			
Shortnose sturgeon ²	<i>Acipenser brevirostrum</i>	E	Delaware River and other Atlantic coastal waters
PLANTS			
Northeastern bulrush	<i>Scirpus ancistrochaetus</i>	E	Adams, Bedford, Blair, Cambria, Carbon, Centre, Clinton, Columbia, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Lackawanna, Lehigh, Lycoming, Mifflin, Monroe, Perry, Snyder, Tioga, and Union Co. <i>Historically found in Northampton Co.</i>
Small-whorled pogonia	<i>Isotria medeoloides</i>	T	Centre, Chester and Venango Co. <i>Historically found in Berks, Greene, Monroe, Montgomery and Philadelphia Co.</i>

¹ E = Endangered; T = Threatened; P = Proposed for listing; C = Candidate

² Shortnose sturgeon is under the jurisdiction of the National Marine Fisheries Service

INDIANA BAT MIST NETTING GUIDELINES

RATIONALE

A typical mist net survey is an attempt to determine presence or probable absence of the species, it does not provide sufficient data to determine population size or structure. Following these guidelines will standardize procedures for mist netting. It will help maximize the potential for capture of Indiana bats at a minimum acceptable level of effort. Although the capture of bats confirms their presence, failure to catch bats does not absolutely confirm their absence. Netting effort as extensive as outlined below usually is sufficient to capture Indiana bats. However, there have been instances in which additional effort was necessary to detect the presence of the species.

NETTING SEASON

May 15 - August 15

These dates define acceptable limits for documenting the presence of summer population of Indiana bats, especially maternity colonies. Several captures, including adult females and young of the year, indicate that a nursery colony is active in the area. Outside these dates, even when Indiana bats are caught, data should be carefully interpreted: If only a single bat is captured, it may be a transient or migratory individual.

EQUIPMENT

Mist nets - Use the finest, lowest visibility mesh commercially available:

1. In the past, this was 1 ply, 40 denier monofilament - denoted 40/1
2. Currently, monofilament is not available and the finest on the market is 2 ply, 50 denier nylon - denoted 50/2
3. Mesh of approximately $1 \frac{1}{4}$ ($1 \frac{1}{4}$ - $1 \frac{3}{4}$) in (~38 mm)

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

NET PLACEMENT

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

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

RECOMMENDED NET SITE SPACING:

Stream corridors - one net site per km of stream.

Non-corridor land tracts - two net sites per square km of forested habitat
(= 1 net site for every 123 acres of forested habitat)

MINIMUM LEVEL OF EFFORT

Netting at each site should consist of:

At least four net-nights (unless bats are caught sooner) (one net set up for one night = one net-night)

A minimum of two net locations at each site (at least 30m apart, especially in linear habitat such as a stream corridor)

A minimum of two nights of netting

Sample Period: begin at sunset; net for at least 5 hr

Each net should be checked approximately every 20 min

No disturbance near the nets, other than to check nets and remove bats

WEATHER CONDITIONS

Severe weather adversely affects capture of bats. If Indiana bats are caught during weather extremes, it is probably because they are at the site and active despite inclement weather. On the other hand, if bats are not caught, it may be that there are bats at the site but they may be inactive due to the weather. Negative results combined with any of the following weather conditions throughout all or most of a sampling period are likely to require additional netting:

- Precipitation
- Temperatures below 10°C
- Strong winds (Use good judgement: moving nets are more likely to be detected by bats.)

MOONLIGHT

There is some evidence that small myotis bats avoid brightly lit areas, perhaps as predator avoidance. It is typically best to set nets under the canopy where they are out of the moon light, particularly when the moon is ½-full or greater.

U.S. FISH AND WILDLIFE SERVICE
Pennsylvania Field Office

QUALIFIED INDIANA 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 Indiana bats must first obtain a permit from the Pennsylvania Game Commission. All Indiana bat captures must be reported in writing to the Service and Commission within 72 hours. Indiana bat surveys should be overseen by a qualified surveyor, who should be present in the field at all times during the investigation. Mist-net surveys should be carried out in accordance with the Service's *Indiana Bat Mist Netting Guidelines*. If any Indiana bats are captured during mist-netting, 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 techniques, including mist-netting, Anabat detection, radio-telemetry, harp-trapping 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, Indiana bats may submit their qualifications to the Service for review. The submission must include documentation that the requestor has experience successfully locating and identifying Indiana 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, Jessica Kapp,
Michael O'Mahony
Sanders Environmental, Inc.
322 Borealis Way
Bellefonte, PA 16823
814-364-8776; 814-659-8257 (cell)
sanders@batgate.com

Jeffrey Brown, Amy Henry &
Russell Rommé
BHE Environmental, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246
513-326-1500
513-326-1550 (fax)

Stacy Wolbert
145 Lamb Drive
Morrisdale, PA 16858
814-360-1290
stacy_wolbert@yahoo.com

Neil Bossart
Civil & Env. Consultants, Inc.
333 Baldwin Road
Pittsburgh, PA 15205
412-429-2324
nbossart@cecinc.com

John Chenger, Matt Hopkins &
Kevin Rhome
Bat Conservation & Management
220 Old Stone House Road
Carlisle, PA 17015
717-241-2228
814-442-4246 (cell)

Hal Bryant
Eco-Tech, Inc.
P.O. Box 8
Frankfort, KY 40602-0008
502-695-8060
502-695-8061 (fax)
myotis2000@aol.com

James Hart
The Vertebrate Museum
Shippensburg University
Shippensburg, PA 17257
717-532-1145

John Macgregor
Berea Ranger District
Daniel Boone National Forest
1835 Big Hill Road
Berea, KY 40403
606-745-3100

Dr. Virgil Brack, Jr.
Environmental Solutions &
Innovations
781 Neeb Road
Cincinnati, OH 45233
513-451-1777
513-451-3321 (fax)

Robert F. Madej
R.D. Zande & Associates
1237 Dublin Road
Columbus, OH 43215
800-340-2743
614-486-4387 (fax)

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

Dr. Lynn Robbins
Southwest Missouri State Univ.
Biology Department
901 South National
Springfield, MO 65804
417-836-5366

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

Bryon DuBois
Trident Environmental Consultants
1856 Route 9
Toms River, NJ 08755
732-818-8699
bdubois@tridentenviro.com

James Kiser
Stantec
1901 Nelson Miller Parkway
Louisville, KY 40223
812-206-0100, 606-434-9018 (cell)
james.kiser@stantec.com

Steve Pernick
Skelly and Loy, Inc.
2500 Eldo Road, Suite 2
Monroeville, PA 15146-1456
412-856-1676
spernick@skellyloy.com

Dr. Phillip Clem
University of Charleston
2300 MacCorkle Ave., SE
Charleston, WV 25304
304-357-4793

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

Ryan Leiberher
Skelly and Loy, Inc.
2601 N. Front St.
Harrisburg, PA 17110
717-232-0593
rleiberher@skellyloy.com

Michael R. Schirmacher
Bat Conservation International
PO Box 4254
Hidden Valley, PA 15502
843-408-1695
mschirmacher@batcon.org

Tim Blackburn
825 19th Street, 2nd Floor
Altoona, PA 16601