



West Virginia Purchasing Division

2019 Washington Street, East
Charleston, WV 25305
Telephone: 304-558-2306
General Fax: 304-558-6026
Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at wvOASIS.gov. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at WVPurchasing.gov with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 1

General Information | [Contact](#) | [Default Values](#) | [Discount](#) | [Document Information](#)

Procurement Folder: 547217

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0603

Vendor ID:

SO Doc ID: ADJ1900000009

Legal Name: ALLSTAR ECOLOGY LLC

Published Date: 2/20/19

Alias/DBA:

Close Date: 2/25/19

Total Bid: \$47,740.00

Close Time: 13:30

Response Date:

Status: Closed

Response Time:

Solicitation Description:

Total of Header Attachments: 1



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder : 547217
Solicitation Description : Addendum 1 - Bat Survey- Camp Dawson
Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation Response	Version
	2019-02-25 13:30:00	SR 0603 ESR02211900000003838	1

VENDOR
000000163048 ALLSTAR ECOLOGY LLC

Solicitation Number: CRFQ 0603 ADJ1900000009

Total Bid : \$47,740.00 **Response Date:** 2019-02-21 **Response Time:** 15:46:38

Comments:

FOR INFORMATION CONTACT THE BUYER
 Stephanie L Gale
 (304) 558-8801
 stephanie.l.gale@wv.gov

Signature on File	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Bat Survey-Camp Dawson Army Training Site				\$47,740.00

Comm Code	Manufacturer	Specification	Model #
77111507			

Extended Description : Critical Fauna Survey for the Indiana Bat and the Northern Long-Eared Bat per the attached specifications.

Proposal for Critical Fauna Survey for the Indiana Bat and Northern Long-Eared Bat

WEST VIRGINIA ARMY NATIONAL GUARD (WVANG)



Indiana bat (*Myotis sodalis*)

Prepared for:
Department of Administration
West Virginia Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

RFQ Number
CRFQ 0603 ADJ1900000009

Prepared by:
1582 Meadowdale Road
Fairmont, WV 26554
Office: (304)-816-3490

February 21, 2019



ALLSTAR ECOLOGY
Natural Resource Specialists

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Contact Information:

AllStar Ecology LLC.
1582 Meadowdale Road

Fairmont WV, 26554

Project Manager: Eric Schroder, M.S.

Cell: (309) 798-8782

Office: (304) 816-3490

Website: www.allstarecology.com

Email: eric.schroder@allstarecology.com

FEIN Number: 26-1557130

Cost: Presence/Absence Acoustic Survey: \$18,840

Supplemental Mist Netting: \$28,900

Total Cost: \$47,740



Indiana bat (*M. sodalis*)

Signed RFQ:



Northern long-eared bat (*Myotis septentrionalis*)



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 34 - Service - Prof

Proc Folder: 547217

Doc Description: Addendum 1 - Bat Survey- Camp Dawson

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2019-02-20	2019-02-25 13:30:00	CRFQ 0603 ADJ1900000009	2

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:
 AllStar Ecology LLC ATTN: Eric Schroder
 1582 Meadowdale Road (cell) 309-798-8782
 Fairmont, WV 26554
 (office) 304-816-3490

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale
 (304) 558-8801
 stephanie.l.gale@wv.gov

Signature X

FEIN # 26-1557130

DATE 2/21/2019

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum

Addendum No. 1 issued to publish the following:

1. The vendor questions and agency answers.
2. To attach the Endangered Species Management Plan as a PDF.
3. The Executive Summary for years 2013 and 2016

End of Addendum
.....

Request for Quotation
(fauna survey for the Indiana Bat and the Northern Long-Eared Bat)

The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Army National Guard's Environmental Office to establish a one-time contract providing all professional and technical personnel, labor, facilities, equipment, materials, transportation and supplies needed to perform a critical fauna survey for the Indiana Bat and the Northern Long-Eared Bat at the Camp Dawson Army Training site near Kingwood, in Preston County, WV. per the specifications and Terms and Conditions as attached hereto.

INVOICE TO		SHIP TO	
DIVISION ENGINEERING & FACILITIES ADJUTANT GENERALS OFFICE 1707 COONSKIN DR		FACILITY MAINTENANCE MANAGER CAMP DAWSON ARMY TRAINING SITE 240 ARMY RD	
CHARLESTON	WV25311	KINGWOOD	WV 26537-1077
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Bat Survey-Camp Dawson Army Training Site			\$47,740	\$47,740

Comm Code	Manufacturer	Specification	Model #
77111507			

Extended Description :

Critical Fauna Survey for the Indiana Bat and the Northern Long-Eared Bat per the attached specifications.

ADJ190000009	Document Phase Final	Document Description Addendum 1 - Bat Survey- Camp Dawson	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Completed and Signed Quotation

AllStar Ecology LLC.
1582 Meadowdale Road
Fairmont, WV 26554
FEIN Number: 26-1557130
DUNS: 829007876



Virginia big-eared bat (*Corynorhinus townsendii virginianus*)

EXHIBIT A
Pricing Page

ALL LABOR, MATERIALS, EQUIPMENT, AND SUPPLIES NECESSARY TO CONDUCT CRITICAL FAUNA SURVEY FOR THE INDIANA BAT AND NORTHERN LONG-EARED BAT, ON CAMP DAWSON ARMY TRAINING SITE AT KINGWOOD, WV

The undersigned, hereafter called the Bidder, being familiar with and understanding the bidding documents; and being familiar with the required qualifications and the mandatory requirements of the Project with regards to the deliverables and associated timelines, hereby proposes to furnish labor, material, equipment, supplies, and transportation to perform the work as described in the bidding documents

BIDDERS COMPANY NAME: AllStar Ecology LLC

VENDOR ADDRESS: 1582 Meadowdale Road
Fairmont, WV 26554

TELEPHONE: 304-816-3490

FAX NUMBER: 1-866-213-2666

E-MAIL ADDRESS: eric.schroder@allstarecology.com


TOTAL BID AMOUNT:

Forty-seven thousand seven hundred forty and 00/100 Dollars

(\$ 47,740.00)

(Contract bid to be written in words and numbers.)

Failure to use this bid form may result in bid disqualification.

SIGNATURE:  **DATE:** 2/20/2019

NAME: Eric Schroder
(Please Print)

TITLE: Bat Biologist

Addendum



Northern long-eared bat (*Myotis septentrionalis*)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: ADJ1900000009

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

AllStar Ecology LLC
Company

E. Stahl
Authorized Signature

2/21/19
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

Purchasing Affidavit



Indiana bat and little brown bat (*M. lucifugus*)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: AllStar Ecology LLC

Authorized Signature: [Signature] Date: 2/21/19

State of West Virginia

County of preston, to-wit:

Taken, subscribed, and sworn to before me this 21 day of February, 2019.

My Commission expires July 11, 2022.



NOTARY PUBLIC [Signature]
Purchasing Affidavit (Revised 01/19/2018)

Vender Preference Certificate



Hoary bat (*Lasiurus cinereus*)

State of West Virginia VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

- 1. **Application is made for 2.5% vendor preference for the reason checked:**
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or**,
- 2. **Application is made for 2.5% vendor preference for the reason checked:**
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,
- 3. **Application is made for 2.5% vendor preference for the reason checked:**
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,
- 4. **Application is made for 5% vendor preference for the reason checked:**
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or**,
- 5. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or**,
- 6. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
- 7. **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.**
 Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: AllStar Ecology LLC

Signed: 

Date: 02/21/2019

Title: Bat Biologist

Certificate of Insurance



Red bat (*Lasiurus borealis*)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

2/20/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement.

Table with producer and insured information. Producer: Dyer Insurance Group, Morgantown, WV. Insured: Allstar Ecology, LLC, Fairmont, WV. Contact: Rebecca R. Haught, rhaught@dyerinsgroup.com. Insurers: Colony Insurance Company, The Cincinnati Insurance Co., BrickStreet Mutual Insurance Company.

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES.

Main table of coverages including Commercial General Liability (PAC), Automobile Liability (ENP), Umbrella Liability (EXC), Workers Compensation (WCB), Professional Liab (PAC), and Pollution Liab (PAC). Includes columns for INSR LTR, TYPE OF INSURANCE, POLICY NUMBER, POLICY EFF, POLICY EXP, and LIMITS.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER CANCELLATION

Table for Certificate Holder (West Virginia Army National Guard) and Cancellation (Authorized Representative signature and text).

Designated Contact



2-Chambered Rocket Boxes installed as part of USFWS conservation measures—Tyler County, WV

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Eric Schroder, Bat Biologist

 (Name, Title)

Eric Schroder, Bat Biologist

(Printed Name and Title)

1582 Meadowdale Road, Fairmont, WV 26554

(Address)

304-816-3490

(Phone Number) / (Fax Number)

eric.schroder@allstarecology.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

AllStar Ecology, LLC

 (Company)

Eric Schroder, Bat Biologist

 (Authorized Signature) (Representative Name, Title)

Eric Schroder, Bat Biologist

 (Printed Name and Title of Authorized Representative)

2/21/19

 (Date)

304-816-3490, 866-213-2666

 (Phone Number) (Fax Number)

Contract Manager



Vernal pool constructed at the Bunnells Run Bat Conservation Site—Ritchie County, WV

REQUEST FOR QUOTATION
Bat Survey Camp Dawson Army Training Site

10. VENDOR DEFAULT:

10.1. The following shall be considered a vendor default under this Contract.

10.1.1. Failure to perform Contract Services in accordance with the requirements contained herein.

10.1.2. Failure to comply with other specifications and requirements contained herein.

10.1.3. Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

10.1.4. Failure to remedy deficient performance upon request.

10.2. The following remedies shall be available to Agency upon default.

10.2.1. Immediate cancellation of the Contract.

10.2.2. Immediate cancellation of one or more release orders issued under this Contract.

10.2.3. Any other remedies available in law or equity.

11. MISCELLANEOUS:

11.1. Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor’s responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Eric Schroder

Telephone Number: 304-816-3490

Fax Number: 866-213-2666

Email Address: eric.schroder@allstarecology.com

Technical Proposal



Long-term Acoustic Monitoring Station – North Fork Conservation Site, Ritchie County, WV

Phase 1: Initial Project Screening/Habitat Assessment

Suitable summer habitat for Indiana bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags greater than 5 inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure (Carter and Feldhamer 2005). Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat.

Suitable summer habitat for northern long-eared consists primarily of dense wooded habitat and associated forested streams and wetlands. Selected roosts of the northern long-eared bat are typically over-topped (i.e., live trees and/or snags), early successional tree species such as black locust (*Robinia psuedoacacia*) and sassafras (*Sassafra albidum*). Selected trees are typically shorter than associated trees within the forest stand and are located in heavy crown cover. Northern long-eared bats typically select trees with cavities but will also roost under sloughing bark (Silvis et al. 2012).

The habitat survey will entail the remote sensing and onsite quantification/qualification of suitable Indiana bat and northern long-eared bat habitat. Remote sensing will require the determination of forest/non-forest, forest fragmentation within a 2 mile (3.2 km) buffer. This overall analysis is intended to better describe the current state of the landscape, in and around the sites as it pertains to potential use by Indiana and northern long-eared bats. Recent aerial imagery combined with a spatial analyst extension in ArcGIS will characterize the landscape as forested or non-forested. The onsite habitat assessment will involve the characterization of forest cover types near recording stations, netting sites, and any located roost trees. Data collected will include overall composition (i.e., species, successional stage, etc.), and qualitative assessment of habitat suitability (i.e., PRTs, riparian/upland corridors).



Northern long-eared bat maternity colony roost (red maple [*Acer rubrum*])

Phase 2: Presence/Absence Sampling – Acoustic Survey

Phase 2 presence/absence acoustic sampling will be the primary means of species determination for this project. Approximately 54 sites are proposed to be sampled to achieve a minimum of 220 recorder nights of sampling. Sampling will incorporate the deployment of Song Meter SM4BAT Ultrasonic Full Spectrum Recorder (SM4) near (a) forest-canopy openings; (b) near water sources; (c) wooded fence lines that are adjacent to large openings or connect two larger blocks of suitable habitat; (d) blocks of recently logged forest where some potential roost trees remain; (e) road and/or stream corridors with open tree canopies or canopy height of more than 33 feet (10 meters); and (f) woodland edges (Britzke et al. 2010, U.S. Fish and Wildlife Service 2018). Recorders will be deployed at sites established during the 2013 and 2016 surveys (Figure 2; De La Cruz et al. 2013, De La Cruz and Schroder 2016) with recordings beginning at sunset and ending at sunrise for two consecutive nights.

The SM4s will be deployed: (a) at least 10 feet (3 meters) in any direction from vegetation or other obstructions (Hayes et al. 2000, Weller and Zabel 2002; Chenger and Tyburec 2014); (b) in areas without, or with minimal, vegetation within 33 feet (10 meters) in front of the microphone; (c) parallel to woodland edges; and (d) at least 49 feet (15 meters) from known or suitable roosts (e.g., trees/snags, buildings, bridges, bat houses, cave or mine portal entrances) (U.S. Fish and Wildlife Service 2018). If possible, the SM4 microphone will be elevated ≥ 9.84 feet (3 meters) above ground level vegetation via a tripod to listen out into flight space to gather the highest quality calls possible. Acoustic sites will be distributed throughout the respective Pringle (1,632 ac), Briery (1,251 ac), and Volkstone (504 ac) tracts of Camp Dawson, with individual recorders being at least 656 feet (200 meters) apart. Camp Dawson proper is not proposed for sampling do to its developed status.

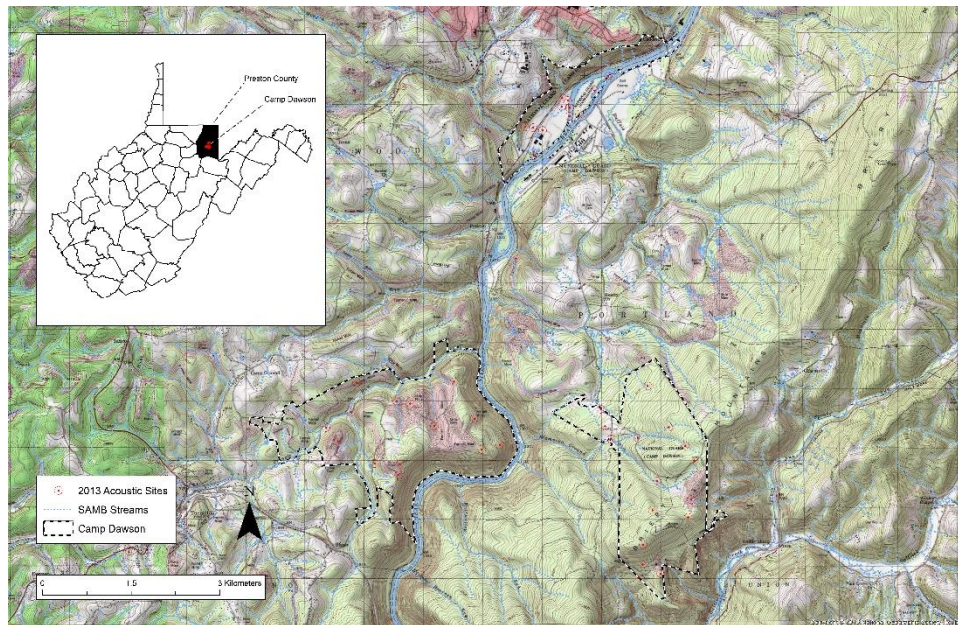


Figure 1. Acoustic Vicinity Map

Verification of Deployment Location

Trimble 6000 GPS units will be used to document the exact location of each acoustic site and its individually named SM4.

Verification of Proper Functioning

Field verification of SM4 functionality will be done by creating ultrasonic sounds (e.g., finger rubs, whistles) in front of the microphone at survey start and finish. This documents that the equipment was working when deployed and retrieved. SM4 settings (e.g., sensitivity, frequency, etc.) will follow the recommendations provided by the manufacturer. Surveyors will save files produced daily to ensure data organization and protection during the survey.

If a SM4 is deployed near the ground it will be aimed $\geq 45^\circ$ above horizontal. Any microphones deployed higher within the flight path/zone (e.g., on a pole) will be oriented horizontally. If sampling within features such as forest openings, the SM4's microphone will be aimed vertically (Britzke et al. 2010).

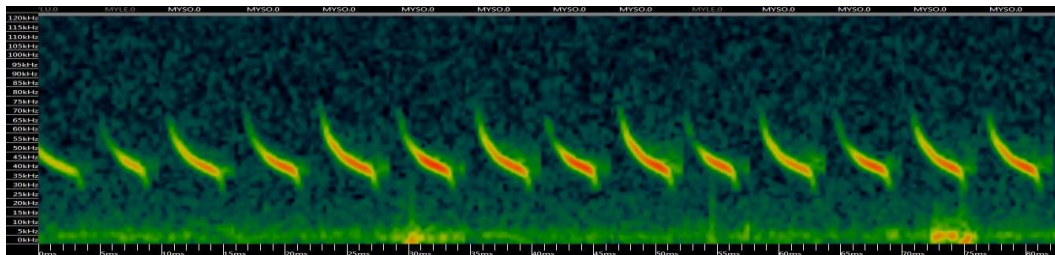


Acoustic recorder over pond

Photographs documenting the orientation, detection cone (i.e., “what the detector is sampling”), and relative position of the microphone will be taken for later submittal to the USFWS FO(s) as part of the acoustic survey report.

Weather Conditions

If any of the following weather conditions exist at a survey site during acoustic sampling, the time and duration of such conditions will be noted, and it will be necessary to repeat the acoustic sampling effort for that night: (a) temperatures below 50°F (10°C) during the first 5 hours of survey period; (b) precipitation that exceeds 30 minutes or continues intermittently during the first 5 hours of the survey, and (c) sustained wind speeds greater than 9 miles/hour (4 meters/second) during the first 5 hours of the survey period (U.S. Fish and Wildlife Service 2018). At a minimum, nightly weather conditions for survey sites will be checked using the nearest NOAA National Weather Service station and summarized in the survey reports.



Indiana bat call

Weatherproofing

The SM4 is a fully waterproof system that and may be left out in periods of precipitation. No modification (i.e., pvc cones) will be made to the unit to ensure the highest quality recordings possible. Despite its weatherproof nature, weather condition protocols will be strictly followed.

Acoustic Analysis/Qualitative Analysis

One automated acoustic identification program (Kaleidoscope and Echoclass) will be used to complete call identification (Ford and Silvis 2014). All data will be analyzed by site/night. Kaleidoscope will only be used to filter calls and convert all full spectrum data to zero-cross format for identification in Echoclass. All calls per night from a particular site indicating a positive probable detection of Indiana and/or northern long-eared bats ($P < 0.05$) will be flagged and assessed in Analook W. Bat biologist Eric Schroder will perform the qualitative analysis of all flagged calls, comparing potential calls to known samples and filtering calls for normal species characteristics. Mr. Schroder has extensive on-the-job acoustic experience and expert training, attending the Eastern Bat Survey Techniques Workshop (Instructors: John Chenger and Janet Tyburec) in Park City, KY from September 10-16, 2014 and the Comprehensive Acoustic Course (Instructors: Chris Corben and Kim Livengood) in Hannibal, MO from September 13-17, 2018. All data will be analyzed by site/night with qualitative analysis being the final determinant.

Phase 3: Mist netting to Capture Indiana and Northern Long-eared Bats

Because presence/absence will be determined via acoustics, there are no minimum requirements for this phase, mist netting will adhere to the 2007 sampling guidance for the capture of Indiana bats (United States Fish and Wildlife Service 2007). If a significant presence value ($P < 0.05$) is recorded two net sets will be erected at one site for two consecutive nights (4 net nights).

Furthermore, ASE recommends a minimum of 10 net nights of sampling within areas identified as high quality Indiana bat habitat (De La Cruz and Ward 2016; Figure 2).

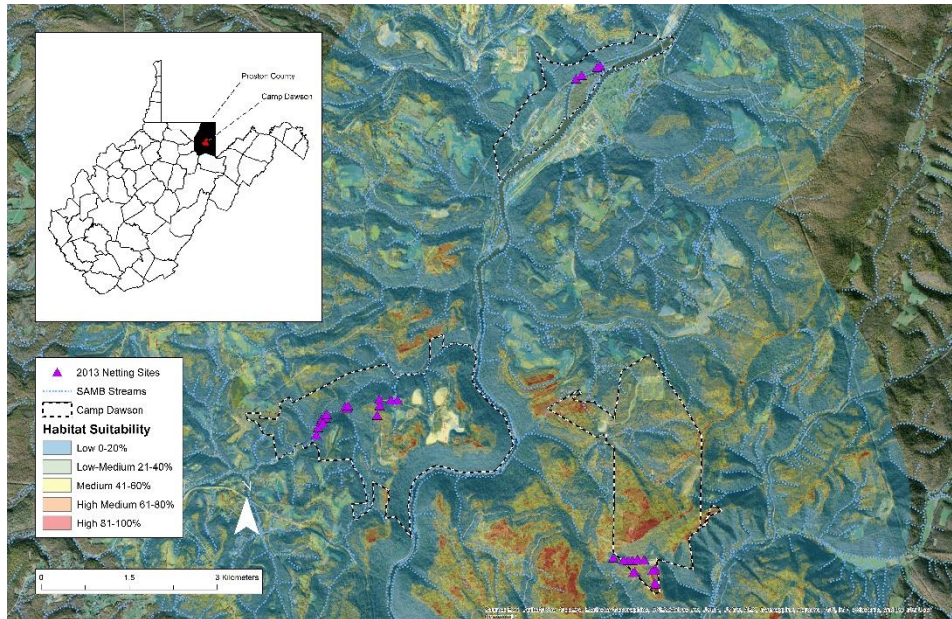


Figure 2. Netting Vicinity Map

Net Placement

Mist netting sites will be in the approximate location of the SM4 that registers a significant presence value ($P < 0.05$). It is likely that nets will be placed perpendicularly across corridors. Nets will fill the corridor from side to side, extending beyond the corridor boundaries when possible, and from stream (or ground) level up to the overhanging canopy. Nets of varying widths and heights will be used as the situation dictates. A typical set is at least 5 m to 9 m high consisting of two or more nets stacked on top one another and from 6 m to 18 m wide. If netting over water, there will be enough space between the net and the water so that captured bats will not get wet. Although no minimum spacing between mist nets is being specified, nets will be set-up throughout suitable habitat. Photo documentation of net placement will be made at each site (U.S. Fish and Wildlife Service 2018).

Survey Period

The survey period shall begin at sunset and continue for at least 5 hours.

Net Checks

Each net set will be checked approximately every 10-15 minutes (Gannon et al. 2007). Care will be taken to minimize noise, lights, and movement near the nets. There will be no other disturbance near the nets, other than to check nets and remove bats. Biologists will be prepared to cut the net if a bat is severely entangled and cannot be safely extracted within 3 or 4 minutes (Canadian Council on Animal Care 2003, Kunz et al. 2009).

Indiana and northern long-eared bats will not be held for more than 30 minutes after capture, unless the individual is targeted for radio-tracking. Bats targeted for radio-tracking will be released ≤ 45 minutes after capture.



Captured Northern Long-eared Bat

Documentation of *Myotis* Bat Captures

All bats captured will be photographed. If an Indiana and northern long-eared bats are captured during mist netting the USFWS FO and WV DNR will be notified of the capture within 24 hours, and the sex and reproductive condition of the bat and GPS coordinates of the capture site will be provided.

Photo-documentation of all bats captured and identified as Indiana bats and the first 10 little brown bats will be submitted to the USFWS FO to verify the identifications made in the field.

Photo-documentation will include diagnostic characteristics:

- a 3/4-view of face showing ear, tragus, and muzzle
- view of calcar showing presence/absence of keel

Documentation of capture site, date of capture, time of capture, sex, reproductive condition, age, weight, right forearm measurement, band number and type (if applicable), and Reichard's wing damage index score (Reichard and Kunz 2009) will be conducted for each bat captured.

To minimize potential for disease transmission, any equipment that comes in contact with bats will be cleaned, following approved protocols (U.S. Fish and Wildlife Service 2012).

Scientific Collecting Permit(s)

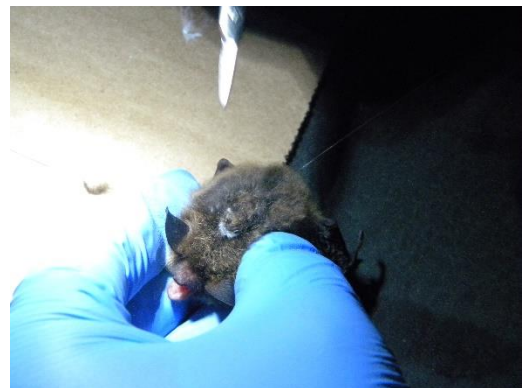
The survey will be conducted by Eric Schroder, Neil Lafleur, Malachia Evans. The project biologists will have in their possession, a valid endangered species collection permit issued by the WVDNR that allows qualified biologists to collect bats, including federally listed species.

Phase 4: Radio-Tracking and Emergence Surveys (as indicated in the Scope of Work)

The radio transmitter, adhesive, and any other markings (e.g., wing bands) will weigh less than 5% of pre-attachment body weight (Animal Care and Use Committee 1998), but will not weigh more than 10% of a bat's total body weight (Kurta and Murray 2002) and will comply with any USFWS and state permits. The attachment of a transmitter to any pregnant or juvenile bats will be forgone to avoid any negative health effects. All Indiana, northern long-eared and little brown bats will be banded using WV DNR bands. It is assumed that no more than 2-3 northern long-eared and/or Indiana bats will be fitted with transmitters from any one mist net site.

Biologist(s) will track all radio-tagged bats captured to diurnal roosts using TRX-1000WR tracking receivers. Tracking will proceed on until the transmitter fails, falls off, or for at least 7 days. In the event that a roost is located, two emergence counts at each identified roost will be conducted. If landowner access is denied, approximate roost locations (i.e., coordinates) will be determined using triangulation.

Daily radio telemetry searches for roosts will be conducted during daylight hours and will be conducted until the bat(s) is located or for a minimum of 4 hours of ground effort per tagged bat per day for 7 days. However, multiple bats captured at the same net location or nearby will be, if feasible, tracked simultaneously. Once a signal is detected, tracking will continue until the roost is located. The biologist(s) will document all ground searching efforts for all bats not recovered during radio-tracking for submittal with the survey report (U.S. Fish and Wildlife Service 2018). For each roost identified during tracking, the biologist(s) will complete a "USFWS Indiana Bat Roost Datasheet".



Attaching telemetry transmitter

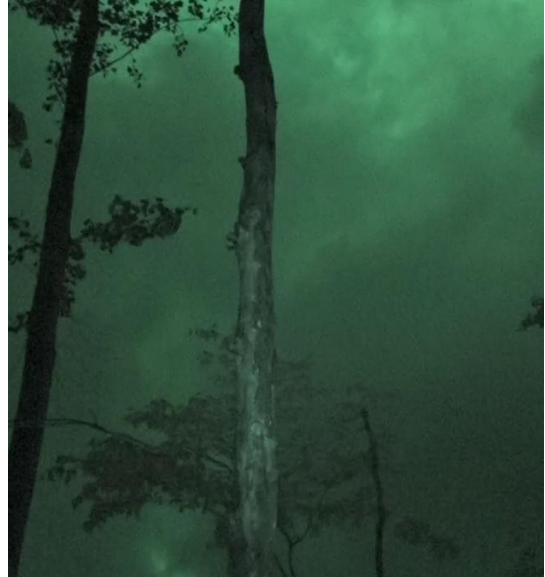
Emergence Surveys of Located Roost Trees

Bat emergence surveys will begin one half hour before sunset and continue until at least one hour after sunset or until it is otherwise too dark to see emerging bats. The surveyor(s) will be

positioned so that emerging bats will be silhouetted against the sky as they exit the roost. Tallies of emerging bats will be recorded every few minutes or as natural breaks in bat activity allow. There will be at least one surveyor per roost. Surveyors will be close enough to the roost to observe all exiting bats but not close enough to influence emergence (U.S. Fish and Wildlife Service 2018). A Sony infrared recorder will be used to aid in identifying the exact timing and number of bats emerging.

Emergence surveys will not be conducted when the following conditions exist: (a) temperatures fall below 50°F (10°C); (b) precipitation that exceeds 30 minutes or continues intermittently during the survey period; and (c) sustained wind speeds greater than 9 miles/hour (4 meters/second) (U.S. Fish and Wildlife Service 2015).

Biologist(s) will use the (or similar) “Bat Emergence Survey Datasheet”. Biologist(s) will also complete an “Indiana Bat Roost Datasheet” for each roost known to be used by one or more Indiana bats.



Infrared emergence monitoring

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- sodalis) and effects of radio transmitters. *Journal of Mammalogy* 83:585–589.
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Recent Relevant Experience

- **Camp Dawson Presence/Absence Survey** – This project involved a large scale survey of 3,387 acres of the Camp Dawson WV Army National Guard training facility in Preston County, WV. The survey utilized both acoustic monitoring and active capture of bats. The project found the likely presence of Indiana bats via acoustics and captured northern long-eared, little brown, tri-colored, red, big brown, and small-footed bats.
- **Raystown Lake Presence/Absence Survey** – The project required sampling all forest management areas (1,996 acres) of the Army Corps of Engineers' Raystown Lake property in Huntingdon County, PA. The survey used acoustic monitoring to determine bat activity within these actively managed lands. Acoustics determined the likely presence of both Indiana and northern long-eared bats, an unsurprising result due to the proximity to the Canoe Creek Mine hibernaculum.
- **ASE Bat Conservation Sites-Acoustic Monitoring** – ASE acoustically monitored all their conservation sites (5) from April-November 2018 with SM4BAT Zero-Cross Recorders. Results were analyzed and submitted to USFWS. All sites were found to contain northern long-eared bats. Acoustic results were verified through mist netting, artificial roost emergence capture, or qualitative analysis. Northern long-eared bat maternity colonies were found within artificial roosts on Margery Run and North Fork Hughes River Bat Conservation Sites in 2018.
- **Middlebourne Pipeline Project Habitat Assessment and Conservation Plan**–The project required an Indiana bat habitat assessment of approximately 13 miles for a pipeline complex in Tyler and Doddridge Counties, WV. The project required 108 bat boxes to be installed and monitored as part of required USFWS conservation measures which ASE was contracted to execute.
- **Clover Creek Conservation Site** – The Clover Creek Conservation Site was established in Pocahontas County, WV. The site serves as conservation measures to offset development projects undertaken by Dominion for the Atlantic Coast Pipeline Project. Acoustic monitoring, capture, and banding efforts were conducted. A little brown bat was captured and banded. Furthermore >50 rocket box bat houses, >60 snags, and 4 vernal pools have been erected/created for use by bats as roosts. Several hundred trees were planted to reforest portions of the site.

- Kanawha State Forest Portal Survey(s) – The project involved harp trapping, mist netting, and IR video surveillance of several abandoned, relic mine shafts for the Mary Ingles Trail Blazers at the Kanawha State Forest in Kanawha County, WV. The project captured an adult female northern long-eared bat exiting the largest mine shaft providing evidence of hibernation onsite.
- WV DEP AML Mine Portal Survey(s) – The project entailed harp trapping, mist netting, and acoustic monitoring of 58 abandoned, relic mines shafts for the WV Department of Environmental Protection in Greenbrier, Wyoming, Barbour, Marion, Monongalia, Kanawha, Wayne, Logan, and Boone Counties, WV. The surveys captured several species of interest such as the small-footed bat and tricolored bat, as well as a few big brown and red bats. Acoustic evidence may also suggest use of some mines by the northern long-eared bat.

Qualifications of Key Personnel: Resumes



Virginia big-eared bat

Eric Schroder

- *Bat Biologist/Environmental Scientist II*



Eric Schroder is a Bat Biologist with AllStar Ecology, LLC. He has conducted endangered and threatened species surveys on reptile and/or mammalian species in California, West Virginia, Ohio, Alabama, Iowa, Kentucky, and Illinois. He has been affiliated with various private and federal agencies in conducting small mammal, avian, and tree community surveys, as well as wildlife behavior studies. Mr. Schroder specializes in Indiana and northern long-eared bat presence/absence surveys, wildlife telemetry, bat habitat suitability studies, ArcGIS, and

has worked on numerous oil and gas projects delineating streams and wetlands for permitting and construction avoidance.

Education

M.S. (2012): Biology, Western Illinois University, Macomb, IL.

B.S. (2010): Biology (emphasis in Wildlife Ecology), Iowa State University, Ames, IA.

Experience

Bat Biologist/Environmental Scientist II - AllStar Ecology, LLC	2013 -current
Wildlife Biologist- Trutech Inc.	2012-2013
Field Technician- Western Ecosystems Technologies, Inc.	2012
Biological Technician- Apogee Environmental and Archaeological, Inc.	2012
Graduate Assistant-Western Illinois University	2012
Research Assistant- Western Illinois University	2011-2012
Field Technician- San Diego State University	2010
Field Technician- Iowa State University	2009

Professional Development

- The Swamp School: Wetland Delineation and Regional Supplement (40 hour training course)
- Ohio Rapid Assessment Method for Wetlands Training Course (Midwest Biodiversity Institute)
- Ohio Qualitative Habitat Evaluation Index for Streams Training Course (Midwest Biodiversity Institute)
- Eastern Bat Survey Techniques Workshop (Bat Conservation and Management Inc.)
- Comprehensive Acoustic Course (Instructors: Kim Livengood & Chris Corben)
- Midwest, Kentucky, and Northeast Bat Working Group
- West Virginia Scientific Collecting Permit for Mist Netting Surveys (2015-2019)
- Federal Recovery Permit for conducting presence/absence surveys for northern long-eared, Virginia big-eared, and Indiana bats (Permit #: TE85228B-1)

Publications

- Schroder, E.S.** and S.P. Romano. 2011. Spatial Distribution of Indiana bat (*Myotis sodalis*) Habitat and Warm Farms in Illinois and Iowa – Poster Presentation. Mississippi River Research Consortium, La Crosse, Wisconsin.
- Schroder, E.S.** and S.P. Romano. 2012. Indiana bat (*Myotis sodalis*) Migratory Routes and Summer Habitat Characteristics Relative to Wind Farms in Iowa and Illinois – Oral Presentation. Western Illinois University’s Environmental Summit, Moline, Illinois.
- De La Cruz, J.L., Karp, M.S., **Schroder, E.S.**, Captain, S., and M. Farmer. 2013. Summer acoustic and mist-netting survey for the Indiana bat (*Myotis sodalis*) at Camp Dawson. West Virginia Army National Guard (WVANG).
- DeLaCruz, J. L., and **E. S. Schroder**. 2015. Kanawha State Forest hibernaculum suitability determination and spring emergence survey report, Kanawha County, West Virginia - Report submitted to the Mary Ingles Trail Blazers. Charleston, WV, USA.
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- DeLaCruz, J. L., R. L. Ward, **E. S. Schroder**, W. M. Ford, E. Barr, and T. Nocera. 2018b. Post-WNS northern long-eared bat day-roosts in a residual population. Pages 13–14 *in*. 28th Colloquium on Conservation of Mammals in the South. Roanoke, VA, USA. March 26-29.
- Schroder, E.S.**, Lafleur, N.W., Evans, M.R., Watson, B., and R.L. Ward. 2019. Artificial Roost use by Northern Long-Eared Bats (*Myotis septentrionalis*) in West Virginia from 2016-2018. Page 13 *in*. 17th Northeast Bat Working Group. State College, PA, USA. January 16-18.

Neil Lafleur

- Environmental Scientist II/Bat Biologist



Neil Lafleur is an Environmental Scientist and Wildlife Biologist at AllStar Ecology with diverse experience working throughout the country. He has been affiliated with various private, state, and federal agencies conducting surveys for invasive plants, forest inventory, and small mammal surveys. He has worked primarily throughout the Northeast, more specifically NY, PA, WV, OH, and IN participating in forestry and wildlife related research, specializing in conducting bat surveys for threatened and endangered species. Mr. Lafleur is also gaining further experience as a qualified wetland

delineator working on projects primarily for the oil and gas industry.

Education

B.S. (2008): Environmental Science (emphasis in Wildlife Ecology), Franklin Pierce University, Rindge, NH.

Experience

Environmental Scientist II/Bat Biologist - AllStar Ecology	2015 - current
Bat Biologist/Project Manager - Apogee Environmental & Archaeological, Inc.	2012 - 2014
Extractions Technician - Con-Test Analytical Laboratory	2012 - 2014
Fisheries Biologist - Saltwater Inc.	2011
Fish Processor/Culturist - Australis Aquaculture LLC.	2010
Bat Biologist - Bat Conservation and Management, Inc.	2010
Biological Technician/Mechanic - Colorado Division of Wildlife	2009
Biological Technician - North East Ecological Services	2008 - 2009
Biological Technician - Curry & Kerlinger	2008

Professional Development

The Swamp School: Wetland Delineation and Regional Supplement (40 hour training course)
 West Virginia Scientific Collecting Permit for Bat Surveys 2014-2019 (Indiana, northern long-eared, Virginia big-eared, gray bats)
 Kentucky Bat Working Group
 First Aide Training
 Confined Space Entry Training

Malachia Evans

– Environmental Scientist I/Bat Biologist



Malachia Evans is a Wildlife Technician at AllStar Ecology. Ms. Evans has worked in Maryland and West Virginia with a focus on environmental evaluations and natural resource science activities. She has participated in both avian and aquatic surveys and specializes in wildlife biology and natural resource related issues. She has been affiliated with private, non-profit, and state agencies participating in surveys for terrestrial, aquatic, and avian wildlife, along with conducting habitat assessments, habitat improvements, and stream and wetland

delineations. Ms. Evans, under the instruction of AllStar Ecology’s lead wildlife biologist Jesse De La Cruz, has provided technical assistance for summer presence/absence surveys, radio telemetry tracking, roost tree emergence surveys, and habitat assessments for rare, threatened, and endangered (RTE) bat species in West Virginia.

Education

B.S. (2016): Fisheries and Wildlife Resources, West Virginia University, Morgantown WV.

A.S. (2014): Natural Resources and Wildlife Technology, Garrett College, McHenry, MD.

Experience

Wildlife Technician - AllStar Ecology, LLC	2015 – present
Student Worker – West Virginia University	2015 – present
Volunteer Owl Bander – Project Owl, Garret College	2012 – 2014
Fisheries Technician – Trout Unlimited	2013
Seasonal Naturalist – Swallow Falls State Park, MD Park Service	2013
Survey Technician – American Woodcock Survey, Potomac-Garret State Forest	2013

Professional Development

Animal Handling: Reptile and amphibian handling/care (Herrington Manor State Park), horse wrangler (Rhodes Grove Camp), northern saw-whet owl handling (Project Owl-Net).

Bird surveys: point count surveys, mist-netting surveys, collection of health data.

GPS Device Experience: Experienced with Topcon GMS II and Trimble GPS devices.

Necropsy Experience: experience with black bear, white-tailed deer (CWD), and bobcat necropsies.

Scales & Tales basic training: Trained by Maryland Park Service (MPS) to work with birds of prey, reptiles, and amphibians housed in MPS Aviaries and Nature Centers.

Other: Basic experience in pit tagging, wetland delineation, stream sampling, macroinvertebrate sampling, habitat assessment.