

**NEW ENGLAND TRANSPORTATION CONSORTIUM
QUARTERLY PROJECT PROGRESS REPORT**

A. PROJECT NUMBER AND TITLE:

NETC 14-2: Investigation of Northern Long-Eared Bat Roosting Sites on Bridges

B. PRINCIPAL INVESTIGATOR(s) & UNIVERSITY(s):

Scott A. Civjan (PI) – University of Massachusetts Amherst
Elizabeth Dumont (Co-PI) – University of Massachusetts Amherst
Alyssa Bennett (External Research Associate) – VT Fish and Wildlife department

C. WEB SITE ADDRESS (*If one exists*):

D. START DATE (*Per NETC Agreement*): February 01, 2015

Notice to Proceed received May 07, 2015

E. END DATE (*Per NETC Agreement*): April 02, 2016

F. ANTICIPATED COMPLETION DATE: April 02, 2017

As discussed with the NETC coordinators and at the Kick-off Meeting with the Project Technical Committee a no cost extension is expected to be requested to accommodate the Notice to Proceed date. The proposed project period was to initiate in February, but notice to proceed was not received until May 07, 2015. This reduced the field work possible in the first summer of the project which is critical to the project success and will need to be concluded in summer 2016.

G. PROJECT OBJECTIVES:

The main objective of the proposed research project is to develop a screening tool and to demonstrate its accuracy in determining the presence of NLEB roosting in New England bridges. Additional information will be collected and disseminated related to preferred structural types for bat roosting, New England bat population distributions and evaluation of existing public data already collected by State Fish and Wildlife Departments and Transportation Agencies throughout New England.

H. REPORT PERIOD: April 01, 2015 – June 30, 2015

I. ACCOMPLISHMENTS THIS PERIOD:

- Kick –off meeting on May 18, 2015
- Literature review completed including searches in databases, web searches and contact with researchers and relevant organizations
- Phone interviews with Fishery and Wildlife, DOT and other organization personnel completed
- Joined and posted inquiries regarding bats in bridges to relevant listserv groups
- Acoustic monitoring equipment ordered and partially received
- Infra-red camera ordered and received
- Miscellaneous supplies purchased for field work
- Advertising, interviewing and hiring of two undergraduate research assistants completed
- Training by Alyssa Bennett completed for Scott Civjan, Angela Berthaume and Helen Yurek
- Initial use of acoustic monitoring equipment at VT bridge site known to have active bat roosting.
- GIS software set up to integrate maps with National Bridge Inventory to determine routes for visual screening and instrumentation

- Rapid visual screening of over 70 bridges in VT, NH, RI and MA to evaluate for signs of roosting to narrow down instrumented structures

J. PROBLEMS ENCOUNTERED (If any):

- Notice to proceed was three months past the project start date. The project relies on data collected during summer months, requiring work during summer 2016 to complete the project.
- Project notice to proceed precludes any 2015 data from early season (pre-maternity roosting).
- Interactions with Fish and Wildlife, DOT and other organization personnel did not identify any new bridges with known or likely bat presence (per Tasks 1 and 3). Therefore more effort than anticipated will be involved in rapid visual screening of bridges to identify specific bridges for monitoring program. Currently over 70 bridges have been screened in VT, NH, RI and MA by the project team while awaiting equipment. Based on these initial interviews it is expected that the scope of Task 3 will need to be revised.
- Acoustic monitoring equipment was on backorder, most received in late June.
- External battery cables and Sonobat software are still not received by UMass.
- Personnel on project will differ from proposed. Two undergraduate research assistants have been hired to assist a graduate student (funded by NSF scholarship) working on the project. This will be re-evaluated for the second year.

K. TECHNOLOGY TRANSFER ACTIVITIES:

No technology transfer activities were performed.

L. STATUS BY TASK:

Task	% Complete
Task 1: Knowledge Summary including Literature Search	85%
Task 2: Regional Habitat Requirements	75%
Task 3: Create Standard Protocol and Survey Inspection Personnel	20%
Task 4: Protocol Survey of Bridges, Implementation and Field Observations	
4.1 Protocol Survey	0%
4.2 Implementation and Field Observations	0%
Task 5: Final Report	0%

M. PERCENT COMPLETION OF TOTAL PROJECT: 15 %

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

- Rapid visual screening of bridges in Western MA, ME and Northern NH
- Acoustic monitoring and thermal imaging of at least nine bridges during maternity roosting season
- Acoustic monitoring and thermal imaging of at least nine bridges during post-maternity roosting season
- Initial evaluation of data
- Initial reporting of bridge characteristics including signs of structural causes of staining and signs of possible bat roosting

O. FINANCIAL STATUS:

As of: June 30, 2015

Total Project Budget: \$ 205,554

Total Expenditures: \$ 42,949.91

Note: This report should not require more than 2-3 pages & should be e-mailed to the NETC Coordinator so as to arrive no later than three (3) working days after the end of each calendar quarter.