

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

A. PROJECT NUMBER AND TITLE: NETC 15-1, Use of Forested Habitat Adjacent to Highways by Northern Long-Eared Bats

B. PRINCIPAL INVESTIGATORS & UNIVERSITIES:

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C. WEBSITE ADDRESS: fozlab.weebly.com

D. START DATE: 12/1/2016

E. END DATE: 11/30/2018

F. ANTICIPATED COMPLETION DATE: 11/30/2018

G. PROJECT OBJECTIVES: Our overall objective addresses several major gaps in the knowledge of Northern long-eared bat (NLEB; *Myotis septentrionalis*) distributions and activity as they relate to the use of highway habitat in New England.

The research objectives will be achieved by accomplishing 8 tasks:

- Task 1. Literature review on NLEB habitat requirements and effects of anthropogenic disturbance, focusing on the effects of roadways.
- Task 2. Develop a “Zone of Influence” matrix for highway induced stressors.
- Task 3. Compile existing data on NLEB and other rare bat species distributions.
- Task 4. Request presence/absence data from State Depts of Transportation and other sources.
- Task 5. Determine land cover (habitat) being used or not used by NLEB.
- Task 6. Determine data gathering needs to improve model inference.
- Task 7. Identify data gaps in sampling of NLEB in specific habitats that may require additional data collection on presence/absence.
- Task 8. Develop screening tool and GIS model that would show zones of influence around highways.

H. REPORT PERIOD: April–June 2018

I. ACCOMPLISHMENTS THIS PERIOD:

-Multiple model types have been run and all yield comparable results such that road density is the only significant factor influencing MYSE presence (Task 5)

-MYSE locality data have been mapped and gaps in data have been identified, with 90% of the data occurring within 3km of roads (Task 7)
-Abstract was accepted for the Northeastern Transportation and Wildlife Conference presentation, UMass-Amherst. Amherst, MA. September 9-12, 2018.

J. PROBLEMS ENCOUNTERED: None.

K. TECHNOLOGY TRANSFER ACTIVITIES: None

L. STATUS BY TASK:

Task 1. NLEB Literature review:	100%
Task 2. Develop a Zone of Influence matrix:	100%
Task 3. Compile NLEB distribution data:	100%
Task 4. Request presence/absence data:	100%
Task 5. Determine NLEB land cover use:	100%
Task 6. Determine additional data needs:	100%
Task 7. Identify presence/absence data gaps:	100%
Task 8. Develop GIS screening tool:	50%

M. PERCENT COMPLETION OF TOTAL PROJECT: 80 %

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

- Further develop code and maps for zone of influence (Task 8)
- Draft final report for project.

O. FINANCIAL STATUS:

As of: *June 30, 2018*

Total Project Budget: \$ 164,970

Total Expenditures: \$ 131,976