

## 2018 Research Symposium

## & STIC Annual Meeting

## Effective Exclusionary Measures for Threatened Bats in Middlebury, VT

### INNOVATION TITLE

Effective Exclusionary Measures for Threatened Bats in Middlebury VT

### STUDY TIMELINE

FEB 2017 –ongoing

### INVESTIGATORS

Meg Lout, VHB

### VTRANS CONTACTS

Glenn Gingras, Senior Biologist

This fact sheet was prepared for the 2018 VTrans Research and Innovation Symposium & STIC Annual Meeting held at the State House in Montpelier, VT, on **September 12, 2018** from **8:00 am– 1:00 pm**.

Fact sheets can be found for additional projects featured at the 2018 Symposium at <http://vtrans.vermont.gov/planning/research/2018symposium>

Additional information about the **VTrans Research Program** can be found at <http://vtrans.vermont.gov/planning/research>

Additional information about the **VTrans STIC Program** can be found at <http://vtrans.vermont.gov/boards-councils/stic>

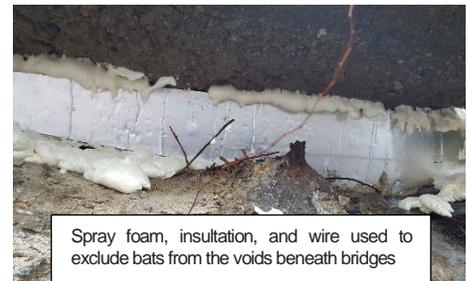
### Introduction

Deteriorating bridges have cracks, crevices, and holes underneath the concrete deck that provide suitable roosting habitats for various bat species, including the northern long-eared bat. Projects need to comply with the Endangered Species Act and Federal Agencies need to practice conservation measures to help the recovery of endangered species. Methods to avoid/mitigate potential adverse impacts must be taken to keep projects on schedule and built during the normal construction season.



### Actions Taken

VTrans has completed various exclusion methods (after consulting with VTFWS and USFSW) during the non-active season (hibernation months). These methods include spray foam, rigid Styrofoam, and wire mesh so that bats cannot enter when coming back from hibernation. Access underneath bridges has been challenging as we need to use ladders and sometimes boom trucks to reach areas.



### Conclusions

Completing exclusionary measures has worked on several projects as an avoidance measure so that projects can be completed on time and without potentially harming bat species during the active season.

### Potential Impacts and VTrans Benefits

Overall, completing exclusionary methods is a low-cost measure to keep projects on schedule while protecting important species. The most expensive part of completing exclusionary measures is the access underneath the bridge which involves ladders, boom trucks, lifts, etc. The construction season in VT is very short. Placing restrictions on bridge projects to construct during the winter season only, would be very cost prohibitive. Performing exclusionary measures on projects will avoid the need from placing restrictive time of year restrictions on VTrans bridge projects.