The Northern Long-eared Bat Listing and State Departments of Transportation Bat Surveys

Presented by
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NLEB Background

- It is predominately found in eastern and north central United States.
- Hibernates in caves and mines
  - On the coast?
- During the summer months they prefer forested or generally wooded areas for roosting and foraging.
- April-November
- Heavily impacted by white-nose syndrome
The White Nose Syndrome Zone

Northern Long-Eared Bat Final 4(d) Rule
White-Nose Syndrome Zone Around WNS/Pd Positive Counties/Districts

Map Created August 31, 2016

- Counties/Districts with WNS/Pd Infected Hibernacula
- White-Nose Syndrome Zone Per Final 4(d) Rule
- U.S. counties within 150 miles of positive counties/districts (Data as of 08/31/16; additional updates expected)
- Northern Long-Eared Bat Range (Revised 07/25/2016)

Northern Long-Eared Bat range and WNS Zone subject to change as new data are collected.
WNS = White-Nose Syndrome
Pd = Pseudogymnoascus destructans; the fungus that causes WNS

Coordinate System: North America Equidistant Conic
Datum: North American 1983
WNS Counties/Districts Data Provided By: Pennsylvania Game Commission
Basemap Data: USGS
Final 4(d) Rule

- USFWS issued its final 4(d) rule January 14, 2016
- Incidental take prohibited if
  - Activity occurs within a hibernaculum
  - Tree removal within $\frac{1}{4}$ mile of hibernaculum
  - Known maternity roost tree (June 1-July 31)
  - Tree removal within 150 feet of known, maternity roost tree (June 1-July 31)
Acoustic Surveys For Department of Transportation Projects
Why Conduct Volunteer Surveys?

- Helps federal agencies meet their responsibilities under section 7(a)(1) of the Endangered Species Act.

- NLEB may be reclassified as Endangered in the not to distant future.

- Surveys now should help expedite consultation and incidental take statements in the future.

- Tri-colored bat (*Perimyotis subflavus*) may be next
  - USFWS petitioned to analyze whether Tri-colored warrants listing.

- Little brown bat (*Myotis lucifugus*) used to be most common in NE
  - 90-100% of population wiped out
Acoustic Surveys

- Can sample large areas
- Automated software can sift through large files relatively quickly
- NLEB is a relatively quiet bat that likes forested habitat
Acoustic Surveys Challenges

- Automated software (approved)
  - False positives for two federally listed bats
    - Indiana bat
    - Northern long-eared bat
  - Trouble with red bats-misidentified as Myotis species
Red Bat Confusion
Quality calls are hard to come by

- Shape of call more closely matches MYLE voucher call than MYSE
- Too poor to make a positive identification
2015-2016 Northern long-eared bat Surveys

2015 – 2016 NLEB Survey Results
78 – Projects surveyed
9 – Projects w/ vetted NLEB Calls
Mitigation: Spray foam applications, time of year cutting restrictions.
Suitable MYSE, MYSO habitat?
Bridges “D” and “E” | Vermont Town Project
Mitigation: Spray foam application, TOY cutting restrictions, bat house installation
Results: little brown bat, Indiana bat and northern long-eared bats are roosting in both bridges.

Forested habitat, although not typical for MYSO or MYSE, is suitable after all.
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