Bat Survey Guidance Update

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Joint ASMR & ARRI Meeting
Lexington, KY
June 10, 2015
OVERVIEW

• How it Applies to Coal Projects?
• 2015 Summer Survey Guidance
• Next Steps for Survey Guidance
Application to Coal Projects

- The Indiana Bat Summer Survey Guidance only applies to coal projects when you are in suitable habitat with no previous occurrence records for Indiana bat &/or NLEB.
- If you are in known habitat for either species, you are required to enter into a Protection and Enhancement Plan (PEP).

✓ In 2015, use Indiana bat summer protocols for NLEB surveys based on initial review of detection/occupancy rate data.
2015 Indiana Bat Summer Survey Guidelines: Same Phased Approach

1. **Initial Project Screening**
   - existing records search and habitat assessment

2. **Presence-Absence Surveys**
   - conduct mist netting OR acoustic surveys

3. **Follow-up Mist-netting Surveys (optional)** to capture any bats initially detected in Phase 2 surveys.

4. **Radio-tracking & Emergence Surveys**
Non-Linear Projects
(per 123 acres of suitable habitat)

4 detector nights (rangewide)

9 net nights

42 net nights

2015 LOE

Updated 9 April 2015
Linear Projects
(per km of suitable habitat)

2 detector nights (rangewide)

4 net nights

6 net nights

2015 LOE

Updated 9 April 2015
Purpose of Survey Guidance

• To determine the presence or likely absence of focal species within a defined area.
  • Can be accomplished by using mist-netting or acoustics following the survey guidance provided

• Bats are not easy to capture/detect, thus no survey technique is going to give 100% accurate results on presence/absence.
  • The Service’s evaluation of these two techniques along with analysis of data collected using each within known maternity colonies, documented that we can accurately determine presence/absence 90% of the time so long as the guidance is followed (E.g., quality sites are selected, LOE is adequate, and identification by qualified individuals or approved software versions).
Acoustic ID Software Testing

• USGS finalized development of standardized 3rd party test to assess the programs’ ability to accurately identify MYSO & MYSE calls when included (and excluded) among a variety of other eastern bat species’ calls (Dr. Mark Ford-lead)

• 3 software programs tested and approved for use:
  • BCID
  • Echoclass
  • Kaleidoscope Pro
Acoustic ID Software Testing

- 4th Program has been submitted for testing:
  - Sonobat (full-spectrum calls only)
  - Currently working with USGS and acoustic community to further develop and define full-spectrum call library
  - Will be testing Sonobat as soon as library and test datasets are ready

- Funding USGS to allow for testing of new versions of programs (annually)
Next Steps for Survey Guidance

- 2015:
  - Complete full-spectrum call library, test datasets, and test Sonobat
  - Continue work with USGS on NLEB
    - Gather additional data (acoustic/netting)
    - Request and analyze survey reports
    - Estimate detection/occupancy rates (MYSO White Paper)
    - Calculate LOE and determine if NLEB Survey Guidance Team is needed based on results
  - Only expect minor clarifications to MYSO guidance from now on
  - Annual review of LOE triggers to switch MYSO RUs
Next Steps for Survey Guidance

• 2016 and Beyond:
  • Determine if current MYSO guidance is adequate for NLEB
  • Development of Post-WNS “Absence” Survey LOE
    • Areas where species was known but may no longer persist
  • Continue to evaluate other ways to improve detection of bats
    • Acoustic lures
For More Information on Summer Survey Guidance