

Bat Emergence Survey Form for New Jersey Structures

For reporting bat presence/absence and details of bridge use to the U.S. Fish and Wildlife Service's NJ Field Office (Service) and NJ Fish and Wildlife's Endangered and Nongame Species Program (ENSP)

Bridges, culverts, and other structures (hereafter called *structures*) within the range of Indiana bats (*Myotis sodalis*) and/or northern long-eared bats (*Myotis septentrionalis*) in New Jersey shall be surveyed for bat occupancy prior to conducting construction, maintenance, or operational activities which could disturb or directly harm bats. Bat emergence surveys are a supplementary tool to assess bat occupancy at structures where a comprehensive visual inspection could not be completed, or where a visual inspection of a structure found evidence of bat occupancy and additional data is needed to confirm the species of bat and number of individuals that use structure.

Bat emergence surveys require thorough observation of the structure at dusk to detect emerging bats. Emergence surveys should begin one half hour before sunset and continue until at least one hour after sunset, or until it is otherwise too dark to see emerging bats. Detailed survey protocols, including acceptable survey dates, recommended equipment, instructions for positioning observers, etc., are described in the document titled "Guidance for Conducting Bat Emergence Surveys at Structures in New Jersey".

Please submit survey results by emailing this survey form and associated photos, map, and acoustic results (if applicable) to Rebecca_Klee@fws.gov (for general projects), Alicia_Protus@fws.gov (for New Jersey Department of Transportation related projects), and MacKenzie.Hall@dep.nj.gov.

Name of Lead Surveyor:

Affiliation:

Contact Phone:

Email:

Additional Surveyor(s):

Project Name:

IPAC Project Code:

Structure ID#

County:

Town:

Road Name (carried):

Road/Waterway Under Bridge:

Lat, Long (decimal degrees):

Other Reference #:

Description of structure being surveyed (e.g., type of bridge, bridge underdeck material, conditions under structure) **and the purpose of the survey:**

Date of Survey: _____ **Time of Sunset:** _____ **Survey Start Time:** _____ **Survey End Time:** _____

Weather conditions during survey:

Attach a map or draw a diagram of the survey area showing the following:

- The orientation of the structure in survey area (show the structure with an ↑ indicating direction of north)
- The location of all observers during the survey (use an ↑ to indicate direction each observer faced, if needed)
- The location of any acoustic detectors used during the survey
- The location(s) on the structure that bats emerged from, if applicable (can include bat #s observed & an ↑ to indicate direction bats flew)

Other Recommended Attachments

- Photographs showing each observer's view of the structure during the emergence survey (to help the Service and ENSP better understand the survey conditions-- a picture speaks a thousand words!)
- If acoustic/ultrasonic bat detectors were used in the survey, attach a supplementary report summarizing the equipment used, how the detectors were deployed, analysis of the acoustic data collected, etc. See the General Checklist for Acoustic Surveys in Appendix C of the U.S. Fish and Wildlife Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines (available at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>).

Summarize the Bat Emergence (Did bats emerge from the structure or not? What part of the structure did bats fly out from? Did bats emerge simultaneously, fly off in the same direction, loiter, circle, disperse, etc.):

Additional Notes:

Space to draw diagram of survey area: