



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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Requirements for Inclusion on New Jersey's List of Recognized, Qualified Indiana Bat (*Myotis sodalis*) and Northern Long-Eared Bat (*Myotis septentrionalis*) Surveyors

The New Jersey Field Office (NJFO) of the U.S. Fish and Wildlife Service (Service) maintains a list of individuals whom we recognize as qualified to conduct surveys for federally listed bats upon request by project proponents. Qualified surveyors are responsible for obtaining a Scientific Collecting Permit from New Jersey Department of Environmental Protection (DEP) Fish & Wildlife and all other permits, licenses, or authorizations required by Federal, State, or local authorities.

All surveys should be carried out in accordance with the Service's most recent *Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines*. Surveyors qualified to conduct only habitat assessments and acoustic surveys can be placed on the list but will be marked with an asterisk (*) to differentiate them from surveyors qualified to also conduct mist-netting and radio-tracking efforts.

REQUIRED QUALIFICATIONS

For Acoustic Surveyors:

- Proficiency in selecting proper sampling sites and conducting acoustic surveys.
- Proficiency in conducting automated acoustic analyses using Service-approved software programs for bat species identification (*i.e.*, BCID, Kaleidoscope Pro, SonoBat).
- Optional: Experience in manual vetting of recordings. (A resume must be included in acoustic survey reports for individuals making qualitative identifications.)

For Mist-Netting and Radio-Tracking Surveyors:

- Proficiency in selecting proper sampling sites and conducting surveys using mist nets.
- Proficiency in correctly identifying and distinguishing Indiana bats and northern long-eared bats from similar bat species under field conditions.
- Experience in proper care and handling of captured bats, including collecting biometric data on live bats.
- Experience in attaching radio transmitters to bats and conducting radio-tracking.
- Ability to apply bands to live bats.

INFORMATION TO BE SUBMITTED TO THE NJFO

To be considered for our list of Recognized, Qualified Bat Surveyors, please submit an email to NJFO_ProjectReview@fws.gov with the subject line “Bat Surveyor Application” and provide the following information for each¹ interested individual:

- A resume and supporting documents (*e.g.*, research papers, survey reports) demonstrating that you possess the required qualifications² as summarized above. Include the following, as applicable:
 - Whether you are/have been listed as a recognized, qualified bat surveyor by any other Service Field Office(s).
 - Relevant training courses and workshops attended, including dates.
 - Description of the geographic area and number of sites where you played an active role in conducting acoustic or mist-net surveys that identified presence of Indiana bats and northern long-eared bats.
 - Experience in capturing and identifying Indiana bats and northern long-eared bats in the field (*i.e.*, number of Indiana bats and northern long-eared bats captured and independently identified in the field).
 - Experience with radio telemetry, roost tree emergence surveys, hibernacula surveys, bat detector systems, pit tags, or other specialized relevant techniques. Please be quantitative; include numbers and/or extent of each type of experience.
- Two letters of reference from professionals who are familiar with your field experience in conducting Indiana and northern long-eared bat surveys and can comment on your abilities based on personal experience.
- Optional qualification template (next page)

¹ Please note that this list is specific to individuals only. Entire organizations cannot be added to the list, but any number of qualified biologists representing a given organization may apply for consideration.

² Ethical Standards: Recognized, Qualified Bat Surveyors are expected to act in good faith to (1) design and conduct appropriate presence/absence surveys, (2) ensure proper care and handling of bats, (3) follow all provisions of State Scientific Collecting Permits, and (4) uphold the principles of the Service’s Scientific Integrity and Scholarly Conduct policy (<https://www.fws.gov/policy-library/212fw7>). If the NJFO becomes aware of any misconduct by an applicant or surveyor, the individual may be denied/removed from the list.

Optional Qualification Template to Facilitate Review of Your Recognized, Qualified Bat Surveyor (RQBS) Application for New Jersey

The New Jersey Field Office (NJFO) encourages the use of this optional template, as offering these details will expedite review/approval of your application. Please provide the information below, as applicable. If you need more space, please attach additional pages.

Name: _____

Number of years of experience conducting bat surveys: _____

- 1. Formal Training**—If you have completed any courses/workshops for bat acoustic surveys and/or mist-netting, list the course/workshop name(s), provider(s), date(s), and skills learned:

2. Identification

- a. How many bats in hand have you personally and correctly identified (*i.e.*, you were the *primary* identifier)?

Species	Number	List any experienced bat surveyor(s) who verified <u>your</u> bat identifications were correct
Indiana bat (<i>Myotis sodalis</i>)		
Northern long-eared bat (<i>Myotis septentrionalis</i>)		
Tricolored bat (<i>Perimyotis subflavus</i>)		
Other		

- b. How many bats in hand have you observed while *not* being the primary identifier?

Species	Number	List the bat surveyor(s) who was the primary identifier
Indiana bat		
Northern long-eared bat		
Tricolored bat		
Other		

3. Acoustic Surveys

- a. Number of surveys you have conducted (*e.g.*, 10 projects totaling 140 detector-nights):

- b. Describe and quantify your role in these acoustic surveys—*e.g.*, Where and during what years were the surveys conducted? Were you an assistant or the lead surveyor? What type(s) of equipment have you used?

- c. How many acoustic surveys were *positive* for northern long-eared or Indiana bat? _____

- d. Acoustic analysis: How many acoustic project analyses have you performed (*i.e.*, been the primary reviewer for) or assisted with? Describe your experience with automated classifiers. If you have experience performing manual vetting, explain.

4. Mist-Net Surveys

- a. Number of mist-net surveys you have conducted: _____
- b. Describe and quantify your role in these mist-net surveys—*e.g.*, Where and during what years were the surveys conducted? Were you an assistant or the lead surveyor?

- c. How many mist-net surveys were *positive* for northern long-eared or Indiana bat? _____

5. Radio-Tracking

- a. How many bats (of *any* species) have you tracked?

Species	Total # of bats	Did you personally attach transmitter (Y/N)?	Located Roost (Y/N)?	Performed Emergence Survey (Y/N)?
<i>e.g., Northern long-eared bat</i>	2	1 – Y, 1 – N	2 – Y	6 – Y

- b. Describe and quantify your role in these radio-tracking efforts (*e.g.*, assistant or lead, where, and during what years):

6. **Any other experience you wish to include** (*e.g.*, emergence surveys, harp trap surveys, bridge assessments)—Describe and quantify your role (*e.g.*, assistant or lead, where, during what years, number of sites with species presence confirmed, number of bats captured):