



**OHIO DIVISION OF WILDLIFE AND U.S. Fish and Wildlife Service (OH FIELD OFFICE)  
GUIDANCE FOR  
BAT MIST NET SURVEYS  
March 2020**

PLEASE NOTE: This document has been updated with new state guidance for the 2020 field season. Please review carefully and contact one of the Agency Contacts listed below with any questions.

**Agency Contacts:**

**ODNR-DOW Permit Coordinator:** Wildlife.Permits@dnr.state.oh.us, (614) 265-6315

**ODNR-DOW Bat Survey Coordinator:** Sarah Stankavich, sarah.stankavich@dnr.state.oh.us, (614) 265-6764

**USFWS OHFO Endangered Species:** Angela Boyer, angela\_boyer@fws.gov, (614) 416-8993, ext.122

**Ohio Mist Net Survey Protocols:**

This document serves as guidance for bat mist netting activities in Ohio and does not supersede any requirements listed on your permits or facility certificate. All permit conditions must be strictly adhered to for permits to be valid and for renewal of permits beyond the existing year.

Due to the presence of white-nose syndrome (WNS) in Ohio, mist-netting in Ohio must be conducted between June 1 and August 15 unless stated otherwise in your state permit. The ODNR Division of Wildlife (ODNR-DOW) and U.S. Fish and Wildlife Service (USFWS) Ohio Field Office (OHFO) have determined that delaying netting activities until June 1 will provide additional recovery time for bats affected by WNS. For presence/probable absence surveys, netting will not be accepted outside of the June 1 - August 15 timeframe.

In order to assess project areas for presence or probable absence of the state and federally listed Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) during summer residency, the USFWS developed the *USFWS 2020 Range-wide Indiana Bat Summer Survey Guidelines* (March 2020). This protocol, with minor modifications referenced here, can also be used in Ohio for the 2020 field season. The DOW has determined that mist-netting surveys remain the most appropriate survey methodology to assess the presence of Indiana bats and northern long-eared bats in Ohio. According to the range-wide guidelines, net surveys shall incorporate either nine net nights per square 0.5 kilometer (123 acres) of project area, or two net nights per kilometer for linear projects.

### **Before Field Season:**

- Anyone surveying bats in the state of Ohio must obtain a federal permit as well as a state scientific collection permit. The federal permit should include both the Indiana bat and the northern long-eared bat.
- Your ODNR-DOW permit consists of two documents: a Scientific Collector (Wild Animal) Permit and an endangered species letter signed by the Chief of the Division of Wildlife (in addition to your federal permit). Both ODNR-DOW documents must be obtained prior to field work and kept with you and any sub-permittees during field work.

### **During Field Season:**

- **Prior to initiation of field work (a minimum of two weeks in advance)**, permittees must provide proposed mist netting plans to USFWS and ODNR-DOW (in the form of an e-mail letter to the USFWS OHFO and copy to the ODNR-DOW Bat Survey Coordinator). **Plans must be reviewed and approved by USFWS before ANY surveys take place.** Study plans must specify objectives, location details, dates of proposed work, and all other relevant details. You must strictly adhere to the current WNS Decontamination Protocol (current version can be found at <https://www.whitenosesyndrome.org/topics/decontamination>). Clothing, boots, gear, and equipment should all be thoroughly decontaminated between nights, as well as between netting sites.
- **Request bat bands at least two weeks in advance** of needing them. Bat bands can be obtained by e-mailing the ODNR-DOW Bat Survey Coordinator with how many bands are needed, current permit number, sizes, and a mailing address. Bands will not be issued until your permits are valid. We have two sizes of bands—2.4 mm and 4.2 mm. The 2.4 mm split metal bat ring made of aluminum alloy is suitable for banding small bats. This band must be placed on all captured Indiana and northern long-eared bats; **therefore, you should not be in the field without the 2.4 mm sized band.** The larger 4.2 mm band is suitable for silver-haired (*Lasiurus noctivagans*), big brown (*Eptesicus fuscus*), and hoary (*Lasiurus cinereus*) bats. ODNR-DOW requests that little brown (*Myotis lucifugus*) and tricolored (*Perimyotis subflavus*) bats be voluntarily banded to add to the knowledge of these species.
- Only individuals who are named on the ODNR-DOW endangered species letter portion of the permit and on the corresponding federal bat permit may conduct and oversee surveys. Trained assistants may work on permitted bat activities under the direct and on-site supervision of a named permittee. All bat IDs must be verified by a named permittee. **If an Indiana bat and/or northern long-eared bat is captured**, the permittee shall notify the USFWS and the ODNR-DOW Bat Survey Coordinator referenced above within 48 hours via email. Reports of Indiana bats and northern long-eared bats should include specific information such as spatial location of capture, band information (all Indiana bats and northern long-eared bats must be banded with ODNR bands), radio-transmitter frequency information, sex, reproductive status, and age of individual.
- If you are taking any biological samples (tissue, fur, blood, etc.), this must be specifically authorized in your state and federal permits and noted in your survey proposal.
- For presence/absence surveys, ODNR-DOW requires all female and juvenile state endangered and threatened bat species (Indiana and northern long-eared bats) be radio-tracked if caught, in accordance with methods outlined in Appendix D of *USFWS 2020 Range-wide Indiana Bat Summer Survey Guidelines*.

### **After Field Season:**

- By January 31, you must submit your annual report to the appropriate USFWS offices in accordance with the conditions listed in your federal permit. As part of your federal permit annual report, you must also submit a completed 2020 USFWS Midwestern US Spreadsheet in electronic format. Be sure to include data for sites where no bats were captured. The USFWS Spreadsheet and Instructions can be found here:  
<http://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>.
- **NEW GUIDANCE:** By March 15, you must submit your final ODNR-DOW report(s) from the previous summer. You are no longer required to fill out the ODNR-DOW Wildlife Diversity Bat Excel Spreadsheet; instead, please forward your USFWS Midwestern US Spreadsheet to the ODNR-DOW Bat Survey Coordinator and ONDR-DOW Permit Coordinator and include your state permit number along with an electronic copy of the project report. Electronic summaries emailed during the field season are NOT considered as full compliance of this reporting requirement.

## **FREQUENTLY ASKED QUESTIONS**

### **When does the USFWS's Indiana Bat Survey Protocol have to be used?**

This protocol should be used anytime Indiana bat and/or northern long-eared bat summer presence/probable absence surveys are conducted in the state of Ohio. Conducting acoustic surveys will not meet the ODNR-DOW requirements.

### **How many net surveys are required for presence/probably absence?**

Net surveys for presence/probable absence shall incorporate, at a minimum, either nine net nights per square 0.5 kilometer (123 acres) of project area, or two net nights per kilometer for linear projects. For linear projects, there must be at least one net night of survey on two different nights (minimum of two nights). This does not allow for two net nights on a single night for surveys.

### **How long are the results of the net surveys valid for an assessment of an area?**

Mist-net surveys documenting probable absence of Indiana bats and/or northern long-eared bats are valid for five years.

### **If a company elects to conduct an acoustic survey instead of netting, will this meet the ODNR-DOW requirements?**

No, the company will have to net if the proposed project is in Ohio for ODNR-DOW requirements. Acoustic surveys will not meet the ODNR-DOW requirements.

### **When can mist net surveys occur in Ohio?**

In Ohio, mist-net surveys may only be conducted from June 1 through August 15 unless indicated otherwise in your state permit. Any netting outside of the June 1 - August 15 timeframe cannot be used in Ohio to assess the presence/probable absence of Indiana bats and/or northern long-eared bats.

### **Where do I get bands?**

If you need bands, email the ODNR-DOW Bat Survey Coordinator at least two weeks in advance with your current ODNR permit number, how many bands in each size (2.4 and 4.2 mm) you will need this season, and a current address to ship the bands.

### **Do I have to band every bat?**

No, currently this is optional. However, you are required as per your state permit to band all Indiana and northern long-eared bats captured.

### **Can a presence/probable absence mist-net survey be conducted within a known Indiana bat and/or northern long-eared bat capture/detection buffer?**

Mist-net surveys cannot be used to document presence/probable absence of Indiana bats and/or northern long-eared bat where presence of the species has already been confirmed by prior surveys, with one exception. Projects within the outer-tier of a 5-mile Indiana bat maternity buffer (>2.5 miles from the capture point) may be eligible for an Indiana bat presence/absence survey under certain circumstances (see Appendix G of the 2020 Range-Wide Indiana Bat Survey Guidelines, <https://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/FINAL%20Range-wide%20IBat%20Survey%20Guidelines%203.23.20.pdf>).

### **What if a project is proposing to clear trees between April 1 and September 30 when bats may be present but no bat records exist in the project area?**

Any Ohio project with a federal or state nexus that is not within a known bat record buffer, and tree clearing between April 1 and September 31 is being proposed, may have a presence/absence mist-net survey conducted between June 1 and August 15 following the range-wide guidance. If a presence/absence survey is not performed, presence of listed bats is assumed.

### **How does take of northern long-eared bats differ from Indiana bats?**

All take of Indiana bats is prohibited under federal and state law unless an exemption has been issued through a permit or incidental take statement. Some take of the northern long-eared bat may be exempted under the 4(d) rule under federal law; however, no such exemption exists under state law. All projects with a federal nexus that may affect a federally listed species, even those where a 4(d) take exemption applies, are still required to undergo consultation with the USFWS.

### **Do I need to fill out the ODNR-DOW Wildlife Diversity Bat Spreadsheet for my annual report?**

No. Reporting requirements now include sending a copy of the USFWS Midwestern US Spreadsheet to the ODNR-DOW Bat Coordinator and ODNR-DOW Permit Coordinator, along with your state permit number and an electronic copy of the project report.