

Summer Maternity Roost Monitoring Instructions

INTRODUCTION (Why is this important?)

We need your help finding and counting colonies of bats that live in buildings.

All six of Vermont's hibernating bat species are affected by the deadly fungal disease White-nose Syndrome (WNS) and some species have experienced drastic population declines. Bats living in Vermont buildings are usually either little brown (*Myotis lucifugus*) or big brown (*Eptesicus fuscus*) bats. Females of these species congregate in groups in spring through summer to give birth and rear their young. Little brown bat populations declined by up to 90% in just a few years due to WNS and are now listed as **endangered** in the state of Vermont. These insect-eating bat species are a vital part of our state's ecosystem, yet we still know so little about them. Your efforts to help monitor summer bat activity around the state will allow us to make informed decisions regarding the welfare and long-term conservation of these important mammals.



PROJECT GOALS (What is this information used for?)

- Gather information on the sizes and behaviors of structure-roosting bat colonies.
- Evaluate ongoing population impacts of WNS on these summer colonies over several years.

THE ROLE OF CITIZEN SCIENCE (How can I help?)

- Count the number of bats exiting the roost (bat house, barn, attic, church, etc.) around dusk. **Conduct four counts between July 11 & July 30.**
- Note when and where bats are exiting the structure and any interesting behaviors (e.g., bats returning to the roost, vocalizations, flight direction).
- Work cooperatively with landowners who are hosting these important colonies.

THE PROTOCOL (Collecting data)

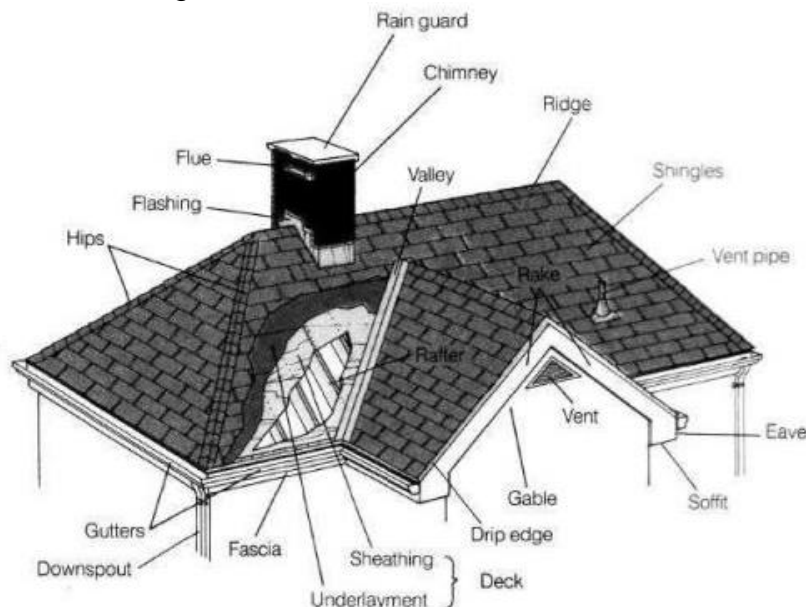
Data Forms- The information you collect will be maintained in a database used to research WNS. The Vermont Fish and Wildlife Department provides the following specific forms so that everyone collects and reports the same data:

1. **Surveyor Information Data Form:** This is used to register you within the program. Please print legibly. You only need to complete this form once, unless changes are needed.
2. **Summer Maternity Roost Description:** The landowner is you if the bats are living in your home. If you are conducting a bat survey elsewhere, it's important to have the landowner's approval. Location information is also important. You only need to complete this form once unless addresses, or other information changes.
3. **Emergence Count Data Form:** Use this form for recording the actual bat count. Please be sure to fill out all information.
4. **Volunteer Forms:** The agreement protects volunteers under Vermont's workman's comp. The time and activity form tracks your volunteer hours and mileage to be used as match for our federal grants. These are very important, and your help is so appreciated. **Thank you!**

Contact- Alyssa Bennett at the VT Fish & Wildlife Dept. Alyssa.bennett@vermont.gov 802-353-4818 to be matched with a known colony or to report a new colony you would like to monitor. *Consistent volunteer effort at a site is critical to good data collection.*

THE SURVEY (Counting bats!)

- Contact the landowner to let them know when you would like to conduct the surveys.
- Scout out your location or look over past survey sheets to determine where bats are exiting. Most locations require multiple sets of eyes to watch all the exits (front, back, and sides of a structure). Make note of where you observe bats exiting the structure each night, as it can change.



Volunteer Commitment: Conduct FOUR Surveys at Your Location Between July 11 & July 30

If you are unable to meet this commitment, please notify Alyssa so that another volunteer crew can gather this critical data before the survey window closes.

- Plan to conduct the survey when sunset temperatures are **above 50°F and there are no strong winds or precipitation** (see emergence count data form for details).
- Bring the emergence count data form, a pencil, and a hand tally counter if you have one (see image at right).
- **Arrive ½ hour before sunset** and position yourself for easy viewing of bats exiting. It helps to have the bats silhouetted against the sky for easier viewing. They look a bit like hang gliders dropping into flight. Most bats begin emerging between sunset and dusk. Sunset and dusk times can be found for your location on the internet and there are even apps for that!
- **Continue the survey until 10 minutes have passed since the last bat you counted** or until it is otherwise too dark to see emerging bats.
- If you see bats re-entering the roost during emergence, which happens when mothers are returning to feed their pups (flightless young), report this number as well.



Return Data Sheets and Volunteer Forms To:

Alyssa Bennett, Vermont Fish and Wildlife Department, 111 West Street, Essex, VT 05452 (hard copies) or Alyssa.bennett@state.vt.us (scanned or photographed copies of sheets and forms). **Thank you!**