



Protocol for counting bats in a colony

Before counting emerging bats, you must locate the openings the bats are using to exit the roost. To see how, see [this protocol](#).

1. It is best to conduct counts on warm nights when it is not windy or raining because bats may chose to remain in the roost when conditions are poor.
2. There are two important periods during the summer for monitoring colonies. The first is before the young-of-the-year bats take flight (pre-volant period), and the second is when the young-of-the-year bats start foraging with their mothers (post-volant period). The timing of these periods varies from year-to-year, and by location, but generally, the pre-volant period is from mid-June to early-July, and the post-volant period is from mid-July to early-August. The best case scenario for monitoring is to select two nights relatively close together in time (a few days apart) within each monitoring period (i.e., two nights in the pre-volant period and two nights in the post-volant period). However, some data is still better than no data, so even if you can only do one night per year, this is still great – just try to schedule your monitoring night during the same period each year.
3. A data sheet for counts is provided below. Please make sure that you have registered your colony on batwatch.ca ([Participate Tab – Add a colony](#)). You can obtain the unique identification number associated with your colony under the Explore Tab – List of colonies. If you have only uploaded the location of one colony, knowing this identification number is not critical because you will only be allowed to enter data for the colonies you have uploaded.
4. Check the sunset time for your area on a weather website. Take a few minutes before sunset to get comfortable and ready for your count. Position one or two people at each opening where the bats exit the roost. On the data form, record the name of each observer and the opening number they observed. Each observer should carry out his/her own count.
5. Observers should situate themselves such that bats emerging from the openings will be silhouetted against the night sky. You can use a light to see your notes, but avoid shining it on the roost entrance. Bright and direct lighting can prevent the bats from emerging from the roost. Bats will typically begin emerging soon after sunset, although they may not come out until it seems quite dark.
6. Observers should count all of the bats that come out of the opening that they are monitoring. Observers can use a click counter or make ticks on a notepad each time you see a bat come out of opening. Avoid counting bats that just fly around the opening. Often bats from another roost will come to visit and investigate. In some instances, bats may re-enter the roost while the others are leaving. Attempt to count the re-entering bats and subtract the number of these individuals from your tally. If it becomes too difficult to follow the bats exiting and entering,

or if there are too many coming out, try your best to get an approximate count, and note this in the comments section.

7. End the count approximately 30 minutes after the last bat has exited the colony. If possible, record the time of the last exit and the temperature at the end of the count.
8. To complete the data sheet, record the number of bats each observer counted.
9. After the count, enter the data on the online form ([Participate Tab – Add a count](#)). If counts are made from multiple openings or multiple people, the online form will take this into account when it calculates the total number of bats in the colony. On the online form, feel free to upload diagram(s) or photo(s) of the roost openings. If you are willing to have use your photos as educational material in the future, please let us know in the comments section. If not, no images of your colony will be released to anyone other than the batwatch.ca team.
10. If you experience difficulties with the online form, you can mail or email the data sheet to us (see contact information below).

Bat colony count data sheet

SECTION A:

Unique number _____
of the colony

Colony name _____

Date of the count _____

T(°C) at the beginning _____
of the count

T(°C) at the End _____
of the count

Sky _____ Clear (0 to 10%)
_____ Partly cloudy (10-50%)
_____ Cloudy (50-90%)
_____ Overcast (90-100%)
_____ Rainy
_____ Stormy
_____ Not recorded

Wind _____ Calm
_____ Light
_____ Moderate
_____ Windy
_____ Not recorded

Moon _____ New moon 
_____ First quarter 
_____ Full moon 
_____ Third quarter 

Time of 1st exit _____

Time of last exit _____

Time at the end _____
of the count

SECTION B:

- If bats emerge from more than one opening, please number the openings. Write down the name of each participant, and the number of bats emerging from each opening.
- If more than one observer carries out a count at the same opening, record the name of the participants and record the same opening number along with the number of bats recorded by each observer.

	Name of the Participants	Opening Number	Number of bats Counted
Observer 1:	_____	_____	_____
Observer 2:	_____	_____	_____
Observer 3:	_____	_____	_____
Observer 4:	_____	_____	_____

Comments: _____

If you prefer to send the form by mail/email:

In Manitoba and Ontario:

Department of Biology
University of Winnipeg
c/o Craig Willis
515 Portage Ave., Winnipeg, MB, R3B 2E9
batwatch@outlook.com

In Quebec:

Ministère des Forêts, de la Faune et des Parcs
Direction de la biodiversité et des maladies de la faune
a/s Nathalie Desrosiers
880, chemin Sainte-Foy, 2e étage, Québec (QC) G1S 4X4
info@chauvesourisquebec.ca

In Alberta:

Alberta Environment and Parks
c/o Lisa Wilkinson
#203, 111-54th Street, Edson, Ab, T7E 1T2
info@albertabats.ca

In Saskatchewan:

Department of Biology
University of Regina
c/o Mark Brigham
3737 Wascana Parkway, Regina, Saskatchewan, S4S 0A2
batwatchsk@gmail.com