

2019

Endangered Bat Species Detection and Protection within Appalachian Corridor's Territory of Action 2019-2021 -1st Quarterly report



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Picture credit : Daniel Jauvin

Summary:

Almost all bat species are under threat in Canada (habitat loss, pesticides, white-nose syndrome, etc.). The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) advises the Ministry of Environment & Climate Change regarding the status of wildlife species at risk. Unfortunately, due to lack of information on bat population sizes in Canada, COSEWIC cannot accurately assess the conservation status of many bat species. Within Appalachian Corridor's territory of action in southern Quebec, three species of bats are now listed as Endangered: the Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*).

Given the catastrophic decline in bat species, Appalachian Corridor developed a project with Canada's federal Habitat Stewardship Program to confirm their presence on key parts of our 3,500 km² territory of action, and then prioritize our conservation efforts. As part of this project, we partnered with *Conservation Chauve-Souris des Cantons-de-l'Est* (CCSCE or Eastern Townships Bat Conservation), another NGO who assisted us with data collection.

In 2019, Appalachian Corridor carried out ecological surveys, including a bat inventory, on ten private properties of high ecological importance on its territory. As part of these surveys, we aim to assess the presence of different bat species, maternity roosts locations or hibernacula. In general, our ecological surveys make an exhaustive inventory of fauna and flora species, and this year was the first that we were able to confirm the presence of bats.

All inventories were conducted between June 6th and September 3rd. Two types of inventories were conducted during the summer: mobile inventories and fixed inventories. For the mobile inventories, the listening routes were carried out on 8 to 10 km transects, in a sector representing the habitat of bats. Two Echo Meter Touch Pro 2 have enabled the recording of calls. In a second step, fixed inventories were carried out on 10 properties bordering the listening routes. A SM4BAT FS Full-Spectrum Ultrasonic Recorder Song Meter was used for a minimum of 7 nights on each property.

During the following month, the analysis of the calls will be performed using Kaleidoscope software by our specialist from CCSCE; Victor Grivegnée-Dumoulin. Analysis just started, but we

already confirmed the presence of many species at risk (the Little Brown Myotis, Northern Myotis and Tri-colored Bat). In the months to come, we will present the results to citizens in order to encourage the protection of these species. Appalachian Corridor will guide landowners through the right actions aiming for protecting natural shelters and foraging habitat (mature trees, wetlands, fallow land, etc.). Old buildings that can serve as roosts or maternity roosts will be targeted and their preservation will be promoted. On some properties, even larger conservation projects could emerge such as the creation of a protected land via legal conservation tools (i.e. notarial deed).



Figure 1: Installation of a Song Meter SM4BAT FS Full-Spectrum Ultrasonic Recorder (Credit: Victor Grivegnée-Dumoulin)