



Stationary Acoustics-Protocols

Perhaps the most common type of bat monitoring data in the NABat database is collected from stationary bat detectors. These detector stations are designed to operate many nights over a long time, but they can of course only monitor in one specific place. The proposed NABat protocol for this type of monitoring is specified in [Loeb et al. \(2015\)](#) – pages 20-38. The protocol is summarized here:

- Detector type: The use of time expansion detectors is not recommended.
- Microphone: Both omnidirectional and directional microphones can be used but should be used consistently.
- Recording settings: It is recommended that a 2-second trigger window and a maximum file length of 15 seconds be used.
- Number of detectors: Two to four detectors in a cell, in different 5x5km quadrants. Detectors should be placed in areas that maximize the number and quality of recordings.
- Site consistency: The same sites should be used across years. It is therefore critical that good sites are selected.
- Habitat location: It is desirable to monitor bats in a variety of habitats. For heterogeneous landscapes, place up to four detectors such that they sample different habitat features, preferably one within each quadrant of the cell.
- Equipment setup: Directional microphones should be at least 5 ft above ground, and omnidirectional microphones should be placed even higher to reduce background noise and echoes from the ground.
- Timing: Surveys should be conducted during the summer active period prior to the young becoming volant. Detectors should run the entire night, from 15 minutes prior to sunset to 15 minutes after sunrise, for a minimum of four nights.