

Acoustic Drive Transect Survey for Bats in Iowa

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Student Investigator:	n/a
Collaborators:	
Duration:	June 1, 2012 – June 30, 2012
Funding Source(s):	Iowa Department of Natural Resources

Goals and Objectives:

- Purchase acoustical equipment (an Anabat SD@ bat detector and microphone that mounts on the roof of a vehicle)
- Establish on 30-mile transect in central Iowa in June 2012 to become familiar with the equipment and procedures for conducting transect surveys to monitor bat activity.

Progress:

We purchased one Anabat SD2 bat detector with a PDA and GPS device and a microphone that mounts on the top of a vehicle for the purpose of conducting drive transect surveys for bats. We selected a ~30-mile transect in central Iowa to record echolocation calls while bats are on their maternity range (Figure 1). This transect captured landscape features representative of central Iowa and ran roughly from the intersection of Highway 30 and 590th street just east of Ames north to the intersection of 580th (also called Wilson Avenue) and 270th street south of Highway 20.

Future Plans:

In July 2012, we will repeat the drive transect described above, and continue to identify and monitor additional 30-mile transects. We will continue to work with the AnabatW software to analyze the data collected from the June transect, and any other data collected from July drive transects.

Conclusions and Recommendations:

We recommend that two people conduct bat transects, particularly when the transects are first set up. This allows one person to focus solely on driving the vehicle and maintaining vehicle speed ~20 miles per hour. The second person assists the driver with any necessary navigation and records notes during the survey, including any unforeseen changes in the route and complications while running the survey. The second person also monitors the SD2 detector while the survey is being completed. In addition, bat surveys may be run in areas far from town and with little cell phone reception. A second person provides an additional safety measure during the survey.