

Internship Report

This summer we had the opportunity to spend three weeks in Sewanee while investigating the acoustic ecology of the area. We worked under the guidance of Professor Haskell of the Biology Department.

Our daily work consisted of conducting sound samples in several different areas of Sewanee, including a forested area off of Brakefield Road, the “downtown” commercial district, exurban neighborhoods, and central campus. We selected ten sites at random in each of these locations for sound sampling. At each site we took ten minute recordings using a microphone and recording device. For the first five minutes of each recording, we measured instantaneous amplitude every fifteen seconds with a sound level meter. We also took note of different sources of noise, including anthropogenic and natural sounds, and we assigned each a rating based on how audible the sound was.

We took recordings at each site during three time slots throughout the day including morning (7:00-9:30), afternoon (2:00-4:30), and evening (20:00-22:30), so as to account for sound diversity. We repeated this process twice for all sites.

After we completed our data collection, we began our analysis of the recordings. We uploaded all of the sound files to a computer in the Landscape Analysis Lab. We used a sound analysis computer program, RavenPro, to more closely examine the sound spectrogram and find average power and peak frequency. We have not yet completed this analysis and will continue to work on the project as part of an ongoing study.

This project allowed us to experience the reality of fieldwork, as we learned the importance of time management, organization, and genuine interest in the research topic. We both gained a new awareness of and appreciation for sound and its relationship to biology. As we both enjoyed the process of data collection and fieldwork, we hope to pursue futures in environmental science research.