



Research projects undertaken by Dr. Lee Kurtz for the 2011-2012 academic year

Kudzu Project: Students will participate in field collection of microbial samples, microbiological laboratory techniques, genomic analysis, population genetic analysis, hypothesis-driven experimental research, and ecological impact studies. The long-term future for research will include the impact of rhizobia diversity on the spread of kudzu, the influence of kudzu invasiveness on the soil microbial community, effects on native plant populations, and the population genetics of both kudzu (host) and rhizobia (symbiont).

Coliform Project: In this project, the presence of coliforms, specifically *Escherichia coli*, will be documented in local bodies of water. In addition, the antibiotic resistance to several common antibiotics will be determined.

Indoor Air Quality Study: A comparison of indoor and outdoor air fungi will be completed at a site of the student's choosing. Samples will be taken at various times of year and day with record keeping monitoring local weather conditions for a week before and after each sample.