

POSTER ABSTRACT

STUDENT

Factors Associated with Occupancy of Different Age/Sex Classes of Deer in the Black Belt Ecoregion

Colton D. Blankenship^{1*}, Neil A. Gilbert¹, and Paige F. B. Ferguson^{1}**

¹Department of Biological Sciences, University of Alabama, Tuscaloosa, AL 35401

* Presenting author: cdblankenship@crimson.ua.edu

** Corresponding author: pfferguson@ua.edu

Abstract: Deer management is critical for properties in the Southeast and must involve collaboration between landowners and wildlife agencies. Often, there is a disconnect between what factors landowners believe are important for deer and the factors that are truly most important. Previous research suggests that a combination of factors, including landscape heterogeneity, land-cover type, and social dynamics drive deer distributions. Therefore, we sought to discover the factors associated with occupancy of different age/sex classes of deer and how those factors compared with landowner perceptions of deer habitat use. From June—July 2017, we collected data on 27 properties centered on the Black Belt Ecoregion. We deployed one camera trap for one month on each property and surveyed vegetation within a 450-meter radius of each camera. We also interviewed the landowners about land management practices and their perceptions of wildlife. Finally, we acquired categorical land-use/land-cover data about each camera site using the CropScape data layer. From the camera trap data, we generated detection histories for yearlings, pregnant females, and males 2+ years of age. We then used Bayesian occupancy models to relate deer occupancy to covariates derived from the vegetation surveys, landowner interviews, and CropScape layer. Initial results suggest different habitat associations for the different age/sex classes. For example, occupancy of 2+-year-old males was positively associated with the amount of agriculture within 900 meters, while occupancy of pregnant females was positively associated with edge density within 900 meters. Landowners generally recognized the importance of habitat diversity for deer, but few recognized the relevance of different habitats for the different age/sex classes.