

**Georgia Undergraduate Research Conference
Meeting in Gainesville Georgia (Fall 2019)
Abstract Deadline: September 18th, 2019**

Title: Spatial variation in male whitetail deer morphology across Georgia

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Abstract:

Understanding morphological variation across space in large mammal species can provide insights into their overall ecology and evolutionary history. However, these analyses are frequently limited by the availability of high-resolution morphological data from individuals over a wide spatial scale. In this study, we compiled a large (N=2,092) sample of morphological characteristics from male whitetail deer (*Odocoileus virginiana*) harvested on Georgia Department of Natural Resources Wildlife Management Areas (N=40; DNR WMA) during the 2017 hunting season. We use these data to investigate spatial heterogeneity in the morphological characteristics (e.g., body weight, total antler spread, antler diameter) of this species. Our data indicate that: 1) most males harvested across these sites were 3.5 years of age or younger, 2) males harvested in northern Georgia WMA were significantly larger (i.e., higher body mass) on average and had longer antler beam length when controlling for age group. These data indicate significant variation in male whitetail deer populations at the state of Georgia spatial scale that may be driven by resource availability and hunting pressure. In the future, we plan to analyze similar patterns in female deer as well as evaluate the influence of agricultural practices and human-induced habitat change.