



ERIN O'CONNELL



MS Thesis Candidate
Big Game, Pronghorn
Southern Pines, NC

STUDENT PROFILE

Born and raised in North Carolina, Erin developed a passion for science and the outdoors from spending summers outside at her grandparents' farm in West Virginia. She has undergrad experience in both marine and terrestrial research. She graduated from Wofford College in South Carolina with a bachelor's degree in Biology in May 2020. Erin spent the past two summers capturing and tracking bats throughout West Virginia, Pennsylvania, and Kentucky, researching population estimates and spread of white-nose Syndrome. She is interested in disease ecology, microbiology, and quantitative ecology. Erin is grateful for her family, friends, and past professors for their continuous support.

PROJECT PROFILE

Pronghorn (*Antilocapra americana*) have gradually faded from the West Texas landscape. Remaining populations continuously struggle by facing obstacles such as habitat fragmentation, overgrazing, parasites, fawn predation, and food availability. Through translocations, efforts to restore pronghorn populations are being explored on several private ranches in Texas' Trans-Pecos region. The behavior of translocated and resident pronghorn is not well understood. Therefore, understanding how pronghorn move is critical because it provides a more in-depth insight into post-translocation pronghorn behavior and space use. Movement ecology research analyzes high resolution spatiotemporal patterns of movement and identifies mechanisms producing the movement path. Erin will be using seven years of daily transmitted collar data to quantitatively model movement and behavior of both translocated and resident pronghorn. She will also investigate mechanisms behind behavioral differences observed between collared translocated and resident pronghorn. Additionally, her project aims to quantitatively model social dynamics, anthropogenic effect on habitat selection, and potential corridors. This study will directly provide the Texas Parks and Wildlife Department with insight for the future of pronghorn restoration efforts in Far West Texas.

