

Jacob Locke, M.S. Thesis Candidate



My name is Jacob Locke and I was raised in Center, Texas, deep in the pineywoods of east Texas. I spent a lot of time hunting and fishing growing up in a small town surrounded by national forests and many lakes. This upbringing in the outdoors led me to study wildlife in college. I graduated from Texas A&M University in May 2018 with a Bachelor of Science degree in Wildlife and Fisheries Sciences with an emphasis in Wildlife Ecology. Texas A&M provided me with many opportunities to gain experience in the wildlife field. I have been fortunate enough to travel to and study wildlife abroad in South Africa, Panama, and Costa Rica. I have also volunteered working as an undergraduate researcher in the avian biosystematics lab at Texas A&M studying phylogenetic relationships. My last summer as an undergraduate student was spent working as an undergraduate technician and researcher for the Borderlands Research Institute studying grassland birds in the Trans-Pecos, Texas. I now have the privilege to continue my education in the wildlife ecology field by pursuing a Master of Science degree in Range and Wildlife Management studying pronghorn ecology under the advisement of Dr. Louis Harveson and Dr. Carlos Gonzalez.

Thesis Project: A Carrying Capacity Estimate and Grazing Regime Analysis Based on Pronghorn Preferred Forage in The Trans-Pecos, Texas

The Trans-Pecos region of Texas is undergoing pronghorn restoration efforts. As part of these efforts, I am determining a carrying capacity estimate for pronghorn in the Marfa northwest and Marathon Basin herd unit areas. This estimate will be based on biomass and nutritional composition of pronghorn preferred forage. I will collect data during the cool/dry and warm/dry seasons when vegetation is at its lowest level of production to prevent an overestimation. I am also conducting an analysis on the relationship between cattle grazing regimes and pronghorn preferred forage production on the Mimms Ranch. I will be sampling for biomass, diversity, and nutritional composition of pronghorn preferred forage across 3 different grazing regimes: continuous, rotational, and non-grazed. Results from this study will allow Texas Parks and Wildlife Department to better aid private landowners in managing for pronghorn through the use of grazing regimes.



CONSERVING THE LAST FRONTIER