Carolina Medina-Nava, M.S. Thesis Candidate

My name is Carolina Medina-Nava and I was born and raised in Monterrey, Nuevo León, Mexico. Since I was a child I have developed a love for wildlife and rangeland ecology by spending most of my time working on my parent's cattle ranch located southeast of Monterrey. In the spring of 2015 I transferred to Sul Ross State University as a junior. Since then I have been involved with capturing mule deer, pronghorn fawns, and mist netting grasslands birds. I was employed as an undergraduate research assistant at the Borderlands Research Institute several times. In 2015, I conducted my first undergraduate research project where I studied trail preference use and black bear and puma encounters by visitors of Big Bend National Park. In 2016, I conducted my second undergraduate research project where I analyzed antler characteristics of mule deer in the Trans-Pecos, TX. I earned my Bachelor's degree in Natural Resource Management in May 2017. I am currently working towards earning my Master of Science degree in Range and Wildlife Management under Dr. Bonnie Warnock.

Thesis Project: Developing a soil water balance and reseeding techniques of native grasses in a grassland restoration area after being chemically treated with Tebuthiuron in the Chihuahuan Desert

Understanding how management practices impact soil health and vegetation establishment on different soil types is vital for the Chihuahuan Desert. Tebuthiuron has become a popular restoration tool, but successful grass establishment is not equal on all soils. It is important to understand how changes in soil temperature and soil water balance impact the success of different management techniques on different soils. The major objectives of my study are: 1) Determine the baseline differences in soil moisture between different vegetation types on different soil types; 2) Determine the impact that differences in soil moisture with associated soil temperature have on the soil water balance; and 3) Determine success of different reseeding techniques on a Chilicotal soil site treated with Tebuthiron; and 4) determine how native grass establishment impacts soil moisture and temperature at this site.

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