

Felicia Rocha — BRI Undergraduate Researcher

My name is Felicia Rocha. I was born in San Antonio, Texas, and graduated high school in Del Rio, TX. I returned to San Antonio for community college before transferring to Sul Ross State University. I have always been interested in animals and the environment, but did not study wildlife formally until arriving in Alpine in 2013. Since then, I have built my field experience in leaps and bounds, participating in guzzler construction, deer captures, spotlight counts, and vegetation assessments. I am currently a technician for the Borderlands Research Institute, assisting graduate student Justin French with his pronghorn research. My main duty has been to describe the microcharacteristics of plant epidermal tissue.



Comparison of Epidermal Microstructures Between Same-Species Plants from Different Areas of Trans-Pecos, Texas

1 January — 15 August, 2015

One focus of the research being conducted by the Borderlands Research Institute looks at pronghorn diet and nutrition. Currently, we are using microhistological fecal analysis to identify the plant species pronghorn are consuming. We are able to distinguish these species by analyzing fragments of epidermal tissue for micro-characteristics such as trichomes, cell arrangement, and stomate orientation. Micro-histological fecal analysis has been used for several decades to determine diets of multiple animal species. Researchers typically construct a reference library of plant species pertaining to their study area; however, our pronghorn study encompasses a wide region. The objective of this study is to determine whether or not microcharacteristics we have associated with a species remain the same across different sites. We will be collecting and comparing plants from the Marfa Plateau and Marathon Basin.



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