

Daniel E. Botello — BRI Undergraduate Researcher

My name is Daniel and I am a Natural Resource Management student at Sul Ross State University. I'm originally from Illinois, but have been in this state now for over a decade. The Piney Woods region of Texas was my home, but I chose to continue my education at Sul Ross to learn more about the native plant and animal species of the Trans-Pecos region. I am a junior and am currently involved with the Borderlands Research Institute (BRI) through the Undergraduate Mentorship Program. My chosen major and involvement with the BRI will allow me to continue doing what I enjoy most: spending time outdoors, learning about native Texas plants, and observing the wildlife species that inhabit this region.



Comparing Nutrient Content of Juniper Species Throughout the Trans-Pecos Mountain Ranges

1 September 2018 — 31 May 2019

I'm currently involved with the BRI browse study project. It is a multi-seasonal research effort to document nutrient content differences of shrubs and trees used as food by wildlife in the Trans-Pecos region. After browse plant samples are collected in the field, they are ground, labeled, and prepared for nutritional analyses. My individual research project will concentrate on junipers and their nutrient content levels in the cold/dry season (Nov – Feb). I will use the results of the cold/dry season's collection to look at the nutrient levels of junipers found throughout different mountain ranges. If nutrient level differences are present among samples of the same species, I will look at the major geographical and environmental differences of the mountain ranges to understand the variations. The average nutrient levels of each juniper species throughout the region will also be analyzed. Results obtained from the cold/dry season will be compared with results from previous seasons.



CONSERVING THE LAST FRONTIER



The BRI Undergraduate Mentorship Program is proudly supported by a grant from the Houston Livestock Show and Rodeo.