

Carolina Medina-Nava — BRI Undergraduate Researcher

My name is Carolina Medina-Nava and I am currently a senior at Sul Ross State University (SRSU). I was born and raised in Monterrey, Nuevo Leon, Mexico, and in 2010, I decided to move to Texas to obtain a better high-level education. For two years, I worked as an intern at Texas Mountain Ranch where I assisted raising and breeding white-tailed deer. After the completion of the internship, I worked with DVM Mike Bringans as an artificial insemination technician of cervids in the United States and Mexico. In the spring of 2015 I transferred to SRSU as a junior. Since then I have been involved in big game, non-game, upland gamebird, grassland bird, and vegetation projects. I have been employed as an undergraduate researcher with the Borderlands Research Institute several times. In 2015, I conducted my first undergraduate research project studying trail preference and black bear and puma encounters by visitors of Big Bend National Park, under the direction of Price Rumbelow. For my second research project, I analyzed antler characteristics of mule deer in Texas, which I am currently extending. I hope to continue my education with a masters and PhD in population dynamics and movements of large mammals. I can then apply my knowledge and expertise to teaching the next generation of wildlife biologists.



Will an Antler Restriction Work to Increase Age Structure in Texas Mule Deer?

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In cervid management, antlers can be used as a selective harvest tool to reduce harvest of young animals. Since 2002, with the implementation of antler restrictions by Texas Parks and Wildlife Department (TPWD) on white-tailed deer (*Odocoileus virginianus*) in eastern Texas counties, the average age class and antler size of harvested bucks have increased. With regards to mule deer (*O. hemionus*), harvest and population data show that a high percentage of young bucks are being harvested in Texas, resulting in a young buck age structure. TPWD data also indicates that mule deer bucks reach their greatest antler size at ≥ 6 years of age; suggesting that mule deer antler quality and hunter satisfaction are currently not reaching their potential. The idea of increasing age structure, and hence antler size, of mule deer bucks in Texas through an antler restriction has arisen. If an effective antler restriction is possible for mule deer, as it is in white-tailed, ear tip-to-tip and inside/outside antler spread measurements must be understood for each age class of bucks. This study will add to the information we have on antler and ear spread characteristics for mule deer in Texas, thus allowing TPWD to further explore an antler restriction for mule deer in certain areas of the state.

