



OLIVIA GRAY

MS Thesis Candidate
Big Game, Exotics
San Antonio, TX

STUDENT PROFILE

Olivia was raised in San Antonio, Texas, but spent a lot of time camping and hiking in West Texas. Her love for the outdoors and conservation led her to pursue a degree in Natural Resources Management from Texas Tech University. While at Texas Tech, she was actively involved in the student chapter of The Wildlife Society where she was able to volunteer on many research projects including studies on mule deer, lesser prairie chickens, coyotes, nilgai, raptors, and passerines. Olivia's experiences during her undergraduate studies led her to gain a deeper appreciation for research, which led her to pursue a Master of Science degree at Sul Ross State University.

PROJECT PROFILE

Since the introduction of aoudad (*Ammotragus lervia*) into Texas, concern has grown about the ecological ramifications of the species across its resident range. Current knowledge indicates a potential dietary overlap between aoudad and native ungulates such as desert bighorn sheep (*Ovis canadensis*) and mule deer (*Odocoileus hemionus*). However, little is known about the dietary composition of these species in co-occupied landscapes. Olivia will investigate the dietary overlap and potential for resource competition of these co-existing species. Utilizing satellite collars on individuals of each species, Olivia will obtain Global Positioning System coordinates to locate individuals and obtain fecal samples to identify consumed vegetation. Olivia will conduct sampling monthly over 12 months, with five fecal samples collected per species each month. Samples of vegetation within the study area will be used to make reference images to identify plant species in fecal samples. Fecal and vegetation samples will be compared to determine dietary composition. Results of this study will aid the management of ungulates by clarifying the nature and impacts of interactions between aoudad and native ungulates. Understanding dietary overlap among these species can distinguish potential avenues of resource competition and shed light on native ungulates' response to aoudad invasion.

