



RACHEL BITTNER

MS Thesis Candidate
Gamebirds, Desert Quail
Lockhart, TX

STUDENT PROFILE

Rachel grew up hiking and camping with her family in state parks throughout Texas, where she developed a love for wildlife and the great outdoors. During her undergraduate career at Texas Tech University she worked as a student research technician for three PhD students who were respectively studying dwarf seahorses, elk, and axis deer. During this time, Rachel also had the opportunity to volunteer with many other research projects, including studies on mule deer, lesser prairie chickens, northern bobwhite, and Guadalupe bass. Her undergraduate research focused on using species distribution models to predict suitable habitat for seagrass using the Texas Gulf Coast as a case study.

PROJECT PROFILE

Scaled quail (*Callipepla squamata*), Montezuma (*Mearns*) quail (*Cyrtonyx montezumae*), and Gambel's quail (*Callipepla gambelii*) are three quail species that occur in the Trans-Pecos ecoregion of Texas and the arid Southwest region of the US. Quail populations have been in decline since the 1960s throughout the southwest due to habitat loss, changing range conditions, and other related reasons. Eyeworms and cecal worms, two parasitic nematodes, can be found in these desert quail; however, their prevalence has not been assessed. The objectives of this study are to assess parasite loads of eyeworms and cecal worms in desert quail with regard to age and sex, as well as associations with precipitation gradients across the Trans-Pecos. Additionally, sites that provide supplemental feed will also be assessed to determine if parasite loads increase as quail densities increase around feeding sites.

