

Margaret G. Downing — BRI Undergraduate Researcher

Hi, my name is Margaret Downing and I am from Beeville, which is a small town in south Texas. I am currently working to earn my bachelor's degree in Wildlife Management at Sul Ross State University, where I am a senior. My love for the great outdoors, and the wildlife contained within, was enforced at a young age due to many hunting, fishing, and camping experiences with my parents. I plan to use the knowledge that I have received from my classes and this program to help maintain and protect wildlife by becoming a Texas Game Warden, so future generations will be able to enjoy them the way that I have.



Determining Winter Seed Availability in the Marfa Grasslands, Texas

16 April — 31 August 2018

Baird's sparrows (*Ammodramus bairdii*) and Grasshopper sparrows (*A. savannarum*) have lost between 70 and 80% of their total population since 1966. During the wintering months these grassland birds depend almost entirely on granivory, suggesting that seed availability in the soil has a direct impact on their populations. Our objectives are to determine the effects of seed availability in the soil seed bank on habitat use by Baird's and Grasshopper sparrows. Soil samples were collected in the winter months of 2017–2018 at known bird points and random grid points. I will be sieving through the soil samples and comparing seed biomass between the collection points. The results will allow us to better understand the relationship between grassland birds and their habitat in order to inform land managers and researchers about the ecological conditions needed to support thriving grassland bird populations.



CONSERVING THE LAST FRONTIER



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