Work in my lab is focuses on connectivity ecology and understanding how wildlife and plant communities acclimatize to anthropic landscapes. Maintaining biodiversity often necessitates maintaining the interconnectedness of biologic communities. To date, the development and maintenance of conservation corridors has been the primary mechanism through which conservation practitioners have sought to improve or maintain connectivity. In addition, the development of conservation corridors is likely the only landscape-level management tool that will allow plants and wildlife to track climate change. However, the evidence supporting their functionality is equivocal because previous studies have looked at functionality of model systems that do not represent the actual spatial, temporal, or landscape context in which corridors are intended to work. Moreover, our evolving understanding of wildlife dispersal has led us to the realization that when dispersing, wildlife are capable of crossing extraordinary gaps. Therefore, even moderate improvements in the matrix, or the development of intermediate stepping stones may have a dramatic impact on overall regional connectivity for a wide array of species. Over the past five years, my research group has demonstrated the conservation value of field margins and ditches in maintaining herbaceous plants. We have also evaluated pheasant response to agricultural in South Dakota, Sage-grouse response to oil and gas development in Wyoming, Sharp-tailed Grouse response to woody encroachment in Minnesota, and wild rice response to the Enbridge Oil spill. In each instance, we used a series of spatial statistical and genetic tools to improve our mechanistic understanding of the system, and assist in crafting management recommendations that have been implemented. At UNT, with funding from NSF, the Bureau of Land Management, and the Oklahoma Department of Wildlife Conservation, my students and I are studying landscape × species interactions that result in corridors working, a range-wide management strategy to conserve Greater Prairie-chickens, and studying landscape factors associated with speciation among Galliformes.