

PhD ASSISTANSHIP: Forest Mammal Habitat, Connectivity, and Climate Resilience - New Mexico State University

The Frey Lab for Mammalian Diversity and Conservation seeks a highly motivated doctoral student to join the lab team beginning August 2024. The lab focuses on addressing applied questions in conservation ecology using field and long-term data sources together with a variety of analytical approaches that will result in robust information to guide management (<https://sites.google.com/view/frey-lab/home>). The PhD student will lead research focused on a suite of closed-canopy conifer forest carnivores and their key prey species such as black bear, pacific marten, red fox, snowshoe hare, and red squirrel. The study area is located at the southern terminus of the Rocky Mountains in northern New Mexico, which is an important linkage corridor that may facilitate climate resilience. Many of the conifer-adapted species in the Rocky Mountains have trailing edge populations in this region, which are important to conservation as they often have unique genetic signatures and adaptations to relatively marginal environments. Yet, at the same time climate change has a heightened impact in this region especially via catastrophic large-scale wildfire. The aim of this study is to understand habitat selection of the suite of conifer-adapted mammals to identify core habitats and linkage corridors across the Southern Rocky Mountains region, and to provide tangible recommendations for conservation and management within the context of forest management and resiliency in a changing climate. This study is in collaboration with the Wildlands Network, which aims to reconnect, restore and rewild North America (<https://www.wildlandsnetwork.org/>).

The successful candidate should be inquisitive, creative, and collaborative, and is expected to mentor junior students, submit grants, present findings at meetings, publish results in leading journals, and develop both academically and professionally. The successful candidate will be supported for up to 5 years. The annual stipend is \$28,472 plus full time tuition and health insurance allowance.

The successful candidate will be advised by Frey and will be based in the Department of Fish, Wildlife, and Conservation Ecology at New Mexico State University, but will have the option to complete the doctoral degree program in another department on campus such as Biology, Plant and Environmental Science, or Geography. The research will form the core of the student's doctoral dissertation. Las Cruces is a small diverse city with a low cost of living and numerous attractions, especially access to millions of acres of public land in the surrounding area.

The Frey Lab is committed to providing a place of work and learning free from discrimination and harassment and encourages applicants from diverse backgrounds.

Qualifications:

- MS degree in wildlife science, biology, conservation ecology, geography or closely related fields. Students lacking a Master's degree may only be considered if they have demonstrated field research experience and statistical knowledge.
- Academic aptitude at both undergraduate (> 3.4 GPA) and graduate level
- Experience and ability to work in the field
- Experience using GIS and program R
- Excellent writing ability
- Good work communication, ability to multitask and stay organized, ability to be motivated and a self-starter.

Preferred Qualifications:

- Experience working with large datasets and with advanced statistics such as occupancy modeling, species distribution modeling (e.g., MaxEnt), computer simulations,
- Experience with camera trapping and radio telemetry
- Record of presentations at professional meetings and peer-reviewed publication
- Experience working on mammals
- Highly competitive GRE scores > 70th percentile on verbal and quantitative portion (GRE scores are not required for admission, but will be considered as part of the qualification material review)

For consideration, please email Dr. Frey a single PDF that includes: initial letter of interest, resume, unofficial transcripts from all institutions attended as undergraduate and graduate student. The letter of interest must explain your experience relevant to the minimum and preferred qualifications and how the position would fit with your academic and professional goals. Please include "PhD Assistantship Application" in the subject line. Full consideration will be given to material sent by 12 May 2023. Materials will be reviewed as received and the position filled upon finding a suitable applicant. Information about the department can be found at <http://aces.nmsu.edu/academics/fws/>.

Dr. Jennifer K. Frey, Department of Fish, Wildlife, and Conservation Ecology, PO Box 3003, Campus Box 4901, New Mexico State University, Las Cruces, New Mexico, 88003-0003;

<https://sites.google.com/view/frey-lab/home>

https://www.researchgate.net/profile/Jennifer_Frey3

jfrey@nmsu.edu