Graduate Research Assistant Position Announcement

Contact: Devan Allen McGranahan  
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Starting: January, 2017 (preferred)  
Level: Master's of Science

Fuelbed ecology of mixed-grass prairie

Study patterns of fuel moisture & load and fire behavior & effects using empirical data and models.

Funding is available for a Graduate Research Assistantship at the Master’s of Science level to study spatial and temporal patterns of mixed-grass prairie fuelbeds and use open-source hardware and software to parameterize and validate fire behavior and effects models. The GRA will collect vegetation data and measure fire behavior as part of a team effort to understand grazing, invasive species, and disturbance dynamics on working rangeland. The position is available immediately and a start date in early January 2017 for enrollment in Spring semester is preferred.

The GRA will be housed in the School of Natural Resource Sciences Range Science Program on NDSU main campus in Fargo, North Dakota. The primary field site will be the Central Grasslands Research Extension Center near Streeter, North Dakota. The primary mentor will be Dr. Devan McGranahan, although the GRA will work closely with other researchers in Range Science.

Requirements: A Bachelor's degree in one or more scientific disciplines related to the project. The GRA will be expected to both work independently and contribute to close collaboration, and have strong communication skills (evidence of successful communication of scientific results via peer-reviewed papers or conference presentations preferred). The GRA will be expected to travel to and work at rural field locations independently, often for extended periods and under all types of weather. Maintaining a valid driver's license is required. Familiarity with data collection, management, and analysis.

Preferred qualifications: Experience with programming in the R statistical environment and C/C++ (willingness to develop these skills is required). Prescribed fire experience (willingness to participate in prescribed fire planning and operation is required). Familiarity with environmental sensors (thermocouples and moisture sensors) and dataloggers, especially open-source/DIY hardware such as Arduino. Familiarity with rangeland plant community and disturbance ecology. Plant identification and other relevant vegetation sampling skills. Mapping and spatial analysis skills.

Interested applicants should send (1) a letter stating interest and addressing listed qualifications along with (2) a current CV via email to contact information above.