Multiple PhD research assistantships (exceptional MS students will also be considered) are available to focus on contemporary changes and interrelationships among fire regimes, juniper invasions and sociopolitical factors driving alternative state transitions in the past, present and near future. Students will be part of an interdisciplinary program and study in the labs of Dirac Twidwell (Institute of Agriculture and Natural Resources) and Craig R Allen (Nebraska Cooperative Fish and Wildlife Research Unit). Students will be expected to lead one of five core funding areas and work collaboratively as part of a team to develop an integrated project that provides new knowledge and solutions for ecosystem managers.

The five core areas include:
1. Spatial vulnerability, resilience and risk of alternative state change
2. Scenario planning analysis and multi-scale (landowner parcel to biome) assessment of management interventions
3. Modeling animal and wildlife responses to landscape restorations
4. Social-ecological traps and human constraints on fire regimes
5. Spatial fire modeling and threshold analysis

This research project offers highly motivated students the unique opportunity to bridge science directly with land managers from multiple conversation agencies and private landowner special interest groups. In 2014, the Conservation Roundtable, a panel consisting of state, federal and private conservation groups, identified Eastern redcedar invasions as the biggest threat to conservation and ecosystem services in Nebraska. Those groups are anticipating the findings from this research project will shape future conservation actions and provide innovative solutions that reprioritize existing programs.

The successful candidate will therefore be expected to build relationships with a diverse group of agency personnel and communicate results in a manner that enhances learning and adaptive management in this landscape. Students should be highly motivated, passionate about scientific inquiry, possess excellent writing and communication skills, and a strong desire to communicate research in refereed scientific journals and to stakeholders. Students will be joining a collaborative group of graduate students conducting unique experiments throughout the Great Plains. Students are given opportunities for cross-project collaborations and to use existing data to explore additional areas of interest.

For additional information:
Students interested in this position should send a statement of interest with research qualifications and career goals, GPA and GRE scores, your most recent transcript (unofficial is fine) and a CV that includes contact information for three references (email preferred). Please send applications to Dirac Twidwell (dirac.twidwell@unl.edu). Start date is flexible but anticipated to be between May 2016-January 2017. Full funding is available for 4 years. The stipend rate for 2016 is $25,200. Full tuition waiver and graduate student health benefits are provided at a reduced rate. Review of applications will begin March 10, 2016, and continue until a qualified candidate is identified.