## **David L Nieland**

Subject:

Ph.D. in Scenario Planning & Analysis, Invasion Ecology

Ph.D. Position - Scenario planning and analysis, invasion ecology The University of Nebraska-Lincoln has a Ph.D. research assistantship available to develop planning scenarios that prioritize conservation actions for Juniperus invasions throughout the Great Plains. The position will be located within the Institute of Agriculture and Natural Resources at the University of Nebraska – Lincoln in the labs of Dirac Twidwell and Craig Allen.

Scenario analysis and planning are powerful tools for communicating with stakeholders the need to consider future uncertainty in conditions that are difficult to control. Scenarios will identify desired future ecological states and the management interventions that may help achieve those identified desired states (or, alternatively, identify management interventions that are unlikely to be successful).

Scenario output will include a limited number of plausible, mechanistic models of predicted future states. Their power lies in the ability to identify interventions, treat those identified interventions as hypotheses, and then determine through models the results of intervention.

Conservation agencies in Nebraska are looking to use the findings from this research project to reprioritize existing programs meant to control or reduce the spread of juniper species. Juniperus virginiana has been labeled among conservation groups as the biggest threat to the values and mission of multiple natural resource agencies. The student is therefore expected to provide leadership and work closely with conservation groups to transfer new scientific knowledge to conservation professionals.

Successful candidates will also have the opportunity to collaborate with a diverse group of graduate students conducting experiments on fire-invasion-human interrelationships. Students are encouraged to explore opportunities for cross-project collaborations and to pursue independent research interests.

## Contact and application 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. Review of applications will begin March 10, 2016, and continue until a qualified candidate is identified.