

Postdoctoral Research Associate in remote sensing and botany or plant ecology/physiology, Lab of Landscape Ecology and Conservation Biology, School of Earth Sciences and Environmental Sustainability

NAU JOB CODE: TO BE DETERMINED

Conducts complex research and project work as part of a team of ecologists and spatial analysts in support of landscape and conservation planning in the West. Projects involve developing models, tools, and maps using remotely sensed imagery, cutting-edge spatial analysis, and advanced techniques in geographic information systems (GIS), database applications, and programming. Specifically, engages in the design and implementation of novel plant phenology field and laboratory sampling methods, advanced spatial analyses and mapping, and landscape change scenario development for the Sonoran Desert of southern Arizona. May be required to plan and participate in fieldwork in remote environments to obtain and analyze plant phenology and spectral measurements of native and non-native invasive plant species using high spectral resolution spectrometer equipment. These activities will also include the field deployment and comparative analysis of new laser point frame and digital image-based vegetation sampling methods.

Keeps up to date on developments in the fields of remote sensing and spatial analysis applicable to projects, and communicates key research findings to the management and scientific communities in diverse formats, including peer-reviewed publications. Provides high-level technical support to project team, collaborators, and organized workshops. Prepares GIS data layers for use in spatial modeling and creates metadata for current and legacy data. Assists in the preparation of reports, proposals, and professional presentations.

Candidate should be proficient in the processing and analysis of remotely-sensed multispectral and hyperspectral imagery (e.g., orthophotographs, RapidEYE, SPOT, Hyperion, MODIS, Landsat) imagery, using the ENVI and ArcGIS platforms. Knowledge of advanced applications for machine learning, image segmentation and feature extraction methods for the statistical analysis of various spatial data is also desired.

Preferred qualifications: Postdoctoral or professional experience in spatial data analysis of arid ecosystems, and an interest in conservation biology and ecology. Experience with IDL programming and LiDAR remote sensing are a plus.

Minimum qualifications: Ph.D. in remote sensing and spatial analysis using GIS, or closely related field.

Expected start date: Summer 2010 (early summer is preferred).

Salary: A competitive salary (plus benefits) commensurate with experience, for up to 1 year, with possibility of extension provided additional funding is available.

Deadline to apply: ***FORMAL POSITION AND NAU WEB-BASED APPLICATION TO BE ANNOUNCED IN EARLY JANUARY***

To inquire, prospective applicants are encouraged to email a cover letter that addresses your interest and experience, Curriculum Vitae, and contact information for at least three professional references to: Dr. Brett G. Dickson in the School of Earth Sciences and Environmental Sustainability at NAU, at brett.dickson@nau.edu. Information on the Lab of Landscape Ecology and Conservation Biology can be found here:

<http://www.cefns.nau.edu/Academic/EnvSci/Lab/>.

NAU is an equal opportunity employer and actively seeks diversity among its employees. See <http://www.nau.edu/gradcol/indexgc.html> for more details regarding admission to NAU.