Post-doctoral Scholar in Landscape Ecology & Remote Sensing

The Biogeography & Landscape Dynamics Lab at Kent State University seeks a Postdoctoral Scholar to conduct research on aspen forest dynamics related to fire and drought in the Great Basin. The project is funded by the Northwest Climate Adaptation Science Center and is intended to deliver actionable science to decision makers regarding vulnerability of lower-elevation aspen forests. The ideal candidate will have strong geospatial skills (e.g. R, Google Earth Engine), strong data science skills (making sense of field data using reproducible workflows), and a thorough understanding of disturbance processes in western North America (e.g. fire, drought, aspen regeneration, etc.).

The successful candidate will join a dynamic and supportive research group of university and USGS scientists with opportunities to conduct applied research and communicate with stakeholders and public audiences. Applicants from diverse backgrounds are encouraged to apply. The position is funded for 15 months (based on an annual salary of $50,000 plus full university benefits), with the possibility of an extension (depending on the availability of funding). Given the short duration of this position, remote work and/or working out of the USGS office in Boise, Idaho is a possibility for the right candidate.

Responsibilities:
- Integrate remote sensing, landscape, and atmospheric data with field data to develop stand-level statistical models to identify key predictors of aspen vulnerability to conversion;
- Develop trend analysis techniques to decompose time series data to assess long-term productivity of aspen stands;
- Assess the drivers of landscape scale trends in aspen productivity with respect to disturbance;
- Evaluate the effect of scale of observation (e.g. Landsat vs. Sentinel data) on aspen dynamics along a highly variable woodland-shrubland ecotone;
- Lead the production of one manuscript, with opportunities to contribute to several others;
- Mentor graduate and undergraduate students and contribute to other landscape scale remote sensing projects in the lab.

Qualifications:
- A PhD in ecology, geography, environmental science, earth science, natural resources or a closely-related field by the anticipated start date;
- Extensive experience with scientific computer programming in languages such as R and/or Python;
- Experience utilizing Google Earth Engine (either JavaScript or Python) in geospatial workflows;
- Experience working with large, multispectral datasets (Landsat, Sentinel, etc.) and statistical models related to time-series analysis;
- Demonstrated evidence of excellent writing and communication skills and be highly motivated to publish in scientific journals.

Additional/Preferred Qualifications
- Experience integrating field data with satellite imagery;
- Demonstrated experience and interest in furthering open science (e.g. creating and using open data, reproducible scripts, github, etc.);
- Prior coursework, practical, and/or research experience in disturbance processes of western North America and plant ecology.

Location:
Kent State University is an R1 University (very high research activity), with a strong group of physical geographers, geospatial scientists, atmospheric scientists, geologists, vegetation and computational ecologists in the Geography, Geology, and Biological Sciences departments. The Biogeography & Landscape Dynamics Lab, housed in the Dept. of Geography is actively engaged with a number of these researchers as well as collaborations with numerous government agencies. Kent is a small college town, nestled in the famous Cuyahoga Valley, with a bustling downtown and a relatively low cost of living. Big city amenities can be found in nearby Akron and Cleveland. The area has an extensive network of rails-to-trails and protected spaces, highlighted by Cuyahoga Valley National Park, offering many opportunities to hike, run and ride. **Given the short duration of this position, remote work and/or working out of the USGS office in Boise, Idaho is a possibility for the right candidate.**

To apply, please send the following as a single PDF attachment to Professor Tim Assal (tassal@kent.edu) with the subject "Postdoctoral Position":
1. A cover letter with a brief statement of research interests, career goals, qualifications, and experiences relevant to the position;
2. A curriculum vitae; and
3. Contact information for three professional references

Application review will begin on August 8, 2022. Finalists will be asked to submit documents through the university jobs portal. The anticipated start date is early Fall 2022.