OSU
Oregon State
UNIVERSITY

DEPARTMENT OF FOREST ECOSYSTEMS AND SOCIETY

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FACULTY RESEARCH ASSISTANT--ECOLOGICAL REMOTE SENSING ANALYST

Posting #0003044

Location: Department of Forest Ecosystems and Society, Oregon State University, Corvallis, OR
Earliest position start date: September 15, 2008
Application closing date: September 8, 2008

The Department of Forest Ecosystems and Society (FES) at Oregon State University seeks a statistically- and geographically-savvy problem-solver to aid in NASA- and National Park Service-funded landscape-scale remote sensing research. Research is focused on new analytical approaches to use Landsat satellite imagery to monitor trends in landscape dynamics inside and outside national parks, and on examining potential linkages among cyclic climate change oscillations, land management strategies, and vegetation dynamics. Focal processes include land management and development, fire, insect attack, woody encroachment, drought stress, and succession in forested and some non-forested ecosystems ranging from boreal to arid conditions. An important component of the work will be relaying methods and results to park monitoring and interpretive staff. Two to six weeks of field work per year are expected. The position will be housed in the Laboratory for Applications of Remote Sensing in Ecology (www.fsl.orst.edu/larse). Familiarity with statistical, geographical, and ecological sciences is important, as are good writing and communication skills.

Responsibilities and duties: This Faculty Research Assistant position will aid in developing, implementing, and testing a variety of approaches to use passive optical imagery, particularly that from the Landsat sensors, to capture landscape dynamics in and around national parks of the western U.S. and Alaska, including Katmai, Kenai Fjords, Olympic, Yosemite, Sequoia, Kings Canyon, and Bryce national parks. Duties cover four areas: image processing and analysis (approximately 50% of time), site visits and field validation (approx. 20%), project logistics and outreach (15%), data management (10%) and supervision of a temporary technician during the field season (5%). Image processing includes acquisition, processing, interpretation, and multivariate statistical analysis of satellite imagery, and involves use and modification of custom software. Site visits and field validation includes establishing contacts with national park staff, planning field sampling and field equipment, driving and hiking to field sites, conducting sample-based observations, and may include multi-day hiking in backcountry and/or travel in small aircraft. Project logistics and outreach include aiding supervisor with workshops and communication with park interpretive and monitoring staff, overall project logistics, and development and presentation of results and methods for public, park professional, and scientific communities.

Qualifications:

Required qualifications include:

1. Masters degree (or Bachelors degree with exceptional other skills and background) in a geographical, statistical, mathematical, ecological, or environmental sciences field.
2. Demonstrated experience (in academic or work setting) with
   a. Geospatial data analysis
   b. Univariate statistical theory and statistical software
   c. Microsoft Windows XP
   d. Standard word processing, spreadsheet, and presentation software
3. Ability and enthusiasm for quickly learning new skills, new software packages, and new concepts.
4. Good organizational skills to manage both large volumes of image data and a large number of professional contacts in collaborating parks.
5. Ability to independently plan and carry out work assignments without direct supervision, and to also work collaboratively in a team.
6. Strong communication skills.

Preferred qualifications include:
1. Classwork instruction or direct work experience in some or all of the following: multivariate statistics, satellite image processing, basic ecological sciences, geographical sciences, computer programming, landscape ecology, spatial statistics and forestry.
2. Basic or advance programming skills (any language; IDL preferred)
3. Experience in planning and carrying out ecological or natural-resource field-research at ecosystem or landscape scale.
4. Desire to promote diversity.

Employment conditions: Full-time (1.0 FTE), 12-month, fixed term faculty research position. Reappointment is at the discretion of the Dean. Full-time annual salary is $38,004 to $44,376, depending on qualifications and experience. Benefits include state retirement, group health, dental, life and disability, reduced tuition rates for employee or dependent at Oregon University Systems schools (restrictions apply), annual leave, and sick leave. The incumbent is expected to work primarily in Corvallis, with two to six weeks of travel for field work expected per year.

For additional information: Contact Robert Kennedy, Search Committee Chair, Department of Forest Ecosystems and Society, 321 Richardson Hall, Oregon State University, Corvallis, OR, 97331-5752. Email: robert.kennedy@oregonstate.edu. For questions on the application process, contact Jeannette Harper at jeannette.harper@oregonstate.edu, or by phone at 541-737-6554.

Application procedure: Qualified applicants are required to upload the following documents: Cover letter, curriculum vitae, official or unofficial academic transcripts, contact information (name, address, email, and phone number) for three professional references, and one or two examples of applicant's writing (with applicant as primary author: first author journal articles, papers from academic classes, non-scientific writing, etc.). If transcripts are too large to upload, they may be mailed to Jeannette Harper, Department of Forest Ecosystems and Society, Oregon State University, 321 Richardson Hall, Corvallis, OR 97331-5752 or emailed to jeannette.harper@oregonstate.edu. http://oregonstate.edu/jobs   Posting #0003044