

## **JOB DESCRIPTION**

TITLE: Postdoctoral Research Associate (full-time; 100% FTE)  
SUPERVISOR: Dr. Jonathan D. Bakker  
LOCATION: University of Washington, Seattle, WA  
DURATION: Negotiable; beginning as early as May 1, 2016, and extending as late as September 30, 2018. Appointment subject to faculty approval.  
SALARY: Commensurate with experience  
DATE PREPARED: March 2016

### **Summary of Position:**

The incumbent will participate in several multi-year and multi-agency projects evaluating vegetation dynamics within the sagebrush steppe in eastern Washington. This research will synthesize new and historical data to increase our understanding of how these communities are structured, including the effects of military training activities, repeated wildfires, and post-fire rehabilitation actions. The position will provide an outstanding opportunity to apply a variety of field and analytical skills to urgent conservation problems with immediate implications. The incumbent will be expected to work closely with research collaborators to produce solid analyses and clear reports with succinct recommendations for land managers. In addition, they will produce compelling scientific articles for publication in peer-reviewed journals.

We seek a highly motivated individual with strong interests in plant community or fire ecology and strong quantitative skills. The successful applicant will be an active member of the University of Washington's Terrestrial Restoration Ecology lab (<http://depts.washington.edu/relab/>). Applicants must be self-motivated and able to work effectively without close supervision. Most of the research will be analytical and computer-based, though field work is planned in Spring 2017 in south-central Washington state. The climate of central Washington is semi-arid and can be extremely hot; accessing the field sites will require walking several miles a day in such conditions over rugged terrain.

The incumbent will occupy a pivotal position in research collaborations between the University of Washington (Dr. Jonathan Bakker), The Ohio State University (Dr. Matt Davies), the Department of Defense, the U.S. Fish and Wildlife Service, the Bureau of Land Management, and the Northwest Fire Science Consortium. A previous project involving many of these agencies, and providing initial data analyses, is archived at <http://depts.washington.edu/firesale/>. Funding for this position has been secured through the Department of Defense Legacy program (<https://www.dodlegacy.org/>) and the Joint Fire Science Program ([www.firescience.gov](http://www.firescience.gov)).

### **Specific Duties Include:**

- Analyze long-term vegetation dynamics, including the relative importance of biotic (e.g., invasion), abiotic (e.g., precipitation) and anthropogenic (e.g., military training, fire, restoration) factors driving change.
- Develop and refine state-and-transition models that communicate vegetation dynamics and the factors driving them.
- Compile plant functional trait data and incorporate it into state-and-transition models.
- Synthesize ecological implications into guidance for land managers.
- Relocate permanent vegetation monitoring plots and rephotograph photopoints.
- Lead field crew collecting vegetation cover data using established methodologies.
- Assist in the supervision / mentoring of a Research Assistant or graduate student, especially during field work.
- Input, quality check, and organize contemporary (2017) vegetation data and integrate it with historical (1989-2010) data.
- Present research results to interested parties via workshops, field tours, scientific presentations, written reports, and publications in peer-reviewed journals.
- Establish and maintain a project website, and contribute to social media.

### **Requirements:**

- Ph.D. in ecology, natural resources management, forestry, biology, or related field. Due to project timeline and university requirements for Postdoctoral Research Associates, degree must have been awarded since October 2012.
- Strong quantitative skills and familiarity with statistical techniques appropriate to plant community data (permutational MANOVA, Indicator Species Analysis, NMDS, Redundancy Analysis, Principal Response Curves, etc.) and with the development of state-and-transition models. Experience with R and/or Python is a strong advantage.
- Experience designing, conducting, and monitoring vegetation research projects. Demonstrated experience in standard vegetation sampling techniques.
- Ability to conduct and direct ecological field work. Expertise in plant community ecology and fire effects on vegetation is desirable.
- Competent botanical skills. Familiarity with the biological systems, flora, and fauna of the Intermountain West is a strong advantage.
- Experience with appropriate field tools and techniques (e.g., map and aerial photo interpretation; use of global positioning units; use of field data loggers, etc.).
- Excellent computer skills, with demonstrated capability in the use of statistical, word processing, spreadsheet, database management, and GIS software.
- Excellent organizational, communication, and presentation skills. Proven ability to write and speak effectively, targeting both scientific and management audiences.
- Proven ability to set and reach goals, work independently without close supervision, give appropriate attention to detail, and meet deadlines.
- Ability and willingness to conduct field work under variable weather conditions, including extended trips, and sometimes under primitive conditions.
- Ability to drive a vehicle on and off road.

### **Application Instructions:**

Interested individuals should send a CV, brief statement of qualifications, and contact information for three references to:

Dr. Jonathan D. Bakker  
School of Environmental and Forest Sciences  
University of Washington  
Box 354115  
Seattle, WA 98195-4115  
P: 206-221-3864  
E: [jbakker@uw.edu](mailto:jbakker@uw.edu)

Email inquiries about this position are also welcome. Review of applications will begin on **April 1, 2016** and continue until the position is filled.

The incumbent will have opportunities for professional development through the University of Washington Office of Postdoctoral Affairs (<http://www.grad.washington.edu/profdev/postdoc.shtml>) and other avenues.

The University of Washington is an affirmative action, equal opportunity employer. The University is building a culturally diverse faculty and staff and strongly encourages applications from women, minorities, individuals with disabilities and covered veterans. University of Washington faculty engage in teaching, research and service. The University of Washington, a recipient of the 2006 Alfred P. Sloan award for Faculty Career Flexibility, is committed to supporting the work-life balance of its faculty.